I. Renewal Document

I.A. Faculty Advisor's Information Dr. Christine King

Email: <u>kingce@uci.edu</u> Phone: (845) 729-7485

I.B. Ten core student BMES members

Name	Chapter Position	Email
Allison Liu	Vice President	liuai@uci.edu
Anushka Chauhan	Mentorship Coordinator	anchauha@uci.edu
Christopher Tan	Project Coordinator	ctan12@uci.edu
Christine Nguyen	President	chrisln5@uci.edu
Dave Soliven	Secretary	dcsolive@uci.edu
Joshua Varela	Industry Correspondent	jcvarela@uci.edu
Lucas Jones	Project Coordinator	lwjones@uci.edu
Lyna Luu	Treasurer	luuld@uci.edu
Neha Muvvala	Outreach Coordinator	nmuvvala@uci.edu
Varu Vummidi	Outreach Coordinator	svummidi@uci.edu

I.C. Student Chapter Website Link

https://bmesatucirvine.weebly.com/

I.D. One Free Student Membership Information

New Membership or Renewal	Email	Name	Company/ Institution/ University	Graduation Year	Gender	Ethnicity
Renewal	lwjones@uci.edu	Lucas Jones	UC Irvine	2026	Male	Prefer not to say

Biomedical Engineering Society at the University of California, Irvine For the 2023-2024 Academic Year

Executive Summary

The UCI Chapter of the Biomedical Engineering Society is a student-led organization to represent and support undergraduate students interested in biomedical engineering. Through our various sectors, we provide students with networking opportunities, project experience, career guidance, volunteer opportunities, and a support system of peers, alumni, graduate students, and faculty. We are committed to serving our peers to help them grow personally and professionally by adjusting our efforts to their needs to develop a supportive community at UCI.

For the 2023-2024 Academic Year, BMES at UCI looked to improve our programs and develop connections to benefit our members. The primary objectives of this academic year were to further improve our Jr. BME Program for high school students by affiliating with the UCI Student Outreach and Retention (SOAR) Program and to diversify and expand our professional development activities, based on member feedback from the past academic year. With the increase in students on the pre-medical track, BMES at UCI put in the utmost effort to support the pre-medical students. We collaborated with numerous groups, staff, and students on campus, including SOAR, Division of Career Pathways, UCI School of Medicine, and Princeton Review. We hosted two large career fairs, as requested by students and corporate connections, our second-annual BME Day with over 250 attendees, and our MedTech Pitch Competition sponsored by two leading medical device companies. To strengthen our industry connections, we developed our first-ever Corporate Sponsorship Package and received our first-ever larger corporate sponsorship from Medtronic! BMES at UCI continued to maintain the bond between undergraduate students and the faculty through tabling activities and sports competitions and strengthened our connections with graduate students by bonding with the Graduate Association of Biomedical Engineering Students (GABES) at UCI and inviting graduate students to our events. Internally, the BMES at UCI Board cohesion is at an all-time best, with the development of new meeting traditions and lasting friendships.

BMES at UCI will continue to develop our relationships with our members, undergraduate students, graduate students, alumni, and faculty. We strive for continuous improvement to meet the evolving needs of the UCI community and beyond to better serve them.

Corresponding Author Neha Muvvala nmuvvala@uci.edu (949)-735-1013 Faculty Advisor Christine King kingce@uci.edu (845) 729-7485



THE HENRY SAMUELI SCHOOL OF ENGINEERING DEPARTMENT OF BIOMEDICAL ENGINEERING 3120 NATURAL SCIENCES II IRVINE, CALIFORNIA 92697-2715

Dear National BMES,

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The local chapter of the Biomedical Engineering Society (BMES) at the University of California Irvine (UCI) has been very productive in the last year. Over the 2023-2024 year, UCI's BMES chapter has maintained very good organization and structure due to the excellent leadership and training skills of the students. This has allowed for several accomplishments over the past year. Most notably, UCI's BMES chapter won the National BMES Student Chapter Outstanding Achievement award for outstanding leadership and immeasurable growth. This is due to membership and retention numbers increasing from last year, which was a major goal in the past year. For instance, they increased graduate student participation by advertising and assisting with both similar graduate and undergraduate events in collaboration with the Graduate Association of Biomedical Engineers Society (GABES), were able to have over 100 project members, and increased their turnout at their weekly BMES events. In addition, they increased their Jr. BME program participation in which they had over 100 high school students sign up for the program this year. This program includes workshops geared towards exposure to the field of BME. The program is now officially a Student Outreach and Retention (SOAR) affiliate, which allowed them to secure additional funding to host more project-based workshops for students and allow them to host workshops on Sundays that were geared towards engineering. These workshops had a consistent turnout with an average of 80 high school students attending each workshop, a new record for the BMES student chapter.

In addition to the above achievements, the students hosted new events for undergraduate engineering students. This includes the Fall Industry Conference 10 companies ranging from startups to large established companies attended and hosted booths. The event had over 150 attendees, and the event allowed companies to recruit early and offer better internship opportunities for the students. They also hosted their Annual Industry Night with over 15 companies from small to large established companies and over 150 attendees. The career fair combined a seminar with a speaker from the BME Industry Advisory Board and company Applied Medical, Maikee Pronda, on how to network and land an interview. The seminar allowed students to learn and then immediately practice their skills at the concurrent industry night.

Another area that BMES at UCI improved upon this year was their Mentorship Program. This program pairs undergraduate students with alumni and industry professionals. The program reached a new record of participants with 107 participants joining, namely through a new incentive initiative by implementing a points system and biweekly challenges to keep participants engaged throughout the program. They had panels throughout the year to provide insightful discussions about career pathways and professional development, such as the Mentor Meet N Greet, a casual networking event for students that had over 70 attendees and 10 alumni and industry professionals. The Mentorship Reveal event had over 90 attendees in which the professional mentors and undergraduate students met and found their mentorship groups and competed in a fun egg drop competition to improve teamwork and communication skills.

The BMES student chapter also improved relations with faculty and local industries. This included tabling at recruitment fairs with the faculty, the president attending faculty meetings and meeting quarterly with the faculty advisor to discuss upcoming events that need faculty support. For example, faculty supported the BME Day in which admitted students can tour laboratories, participate in a research poster session, and a faculty panel discussion to learn about the BME department and undergraduate curriculum. To improve industry relations, they created their first sponsorship package for companies, where Medtronic became the first official corporate sponsor, providing funds to cover t-shirts for the chapter. They maintained connections with HR representatives from companies who have the sponsorship package on hand and for future references for students in hopes of furthering chapter fundraising and industry initiatives. They increased their focus on professional development by working with the Division of Career Pathways (DCP) to provide more resources for members such as headshots, resume feedback, and pitching workshops. Lastly, in collaboration with sponsors Edwards Lifesciences and Microvention-Terumo, they hosted a full-day MedTech Pitch Competition in which teams pitched their ideas to a panel of judges consisting of faculty and industry professionals, which led to ideas submitted to the National BMES Student Design Competition. Afterwards, the chapter guided teams to further develop their idea and create a proof-of-concept to address a clinical need for the national competition application.

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THE HENRY SAMUELI SCHOOL OF ENGINEERING DEPARTMENT OF BIOMEDICAL ENGINEERING 3120 NATURAL SCIENCES II IRVINE, CALIFORNIA 92607-2715

To further grow their reach in the community, they developed new initiatives, such as the first-ever High School Visits. This first-time collaboration with Portola High School and Woodbridge High School involved hosting talks and panels at the high schools. They also brought back mini-projects as members wanted more hands-on projects with guidance from near-peers that they could use to build their resumes. Over 40 students built an automated pill dispenser and learned how to use SolidWorks and Arduino coding to develop the prototypes. They balanced their events throughout the quarters, having 3-4 events each quarter, and led one highlight event for the year to improve work-life balance for the board members and provide students with mental health awareness, which was a key area for improvement noted last year. This allowed students to improve their board cohesion, adding more casual interactions and bonding activities between board members, and acknowledging the work that the board members have done for each event. To be more inclusive of the pre-medical biomedical engineering track at UCI, they increased communication with medical students by inviting them to panels and working with Princeton Review to provide additional resources for students studying the MCAT. These efforts led to multiple medical students joining the Mentorship Program as professional mentors, diversifying the potential career opportunities for the students.

The chapter has some common areas that could be improved upon. This includes increasing interactions and relationships with alumni, partnering more with DCP for professional development activities and workshops, and increasing inter-chapter collaborations with more in-person events. They also intend to improve social and networking opportunities with professors and graduate students in collaboration with GABES, increase hands-on project opportunities for undergraduate students to develop their technical skills, and maintain high attendance at events throughout the year, particularly in the spring quarter. Lastly, they intend to improve collaboration with the BME Industry Advisory Board, continue to increase relations with local companies, and obtain sponsorships to improve their professional outreach opportunities.

Sincerely,

Christine E. King, PhD Associate Professor of Teaching Department of Biomedical Engineering, University of California, Irvine kingce@uci.edu

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V. Administrative Report

The Executive Board and General Board of BMES at UCI serve as the spokespersons and leaders of the organization. The Executive Board for the 2023-2024 academic year consisted of one President, one Vice President, and one Treasurer. General Board Members are responsible for leading a specific sector of the organization– Outreach, Social, Mentorship, Project, or Industry– with the support of the Executive Board. Officers are in charge of organizing workshops, events, socials, fundraisers, and more. As our chapter grows, we will adjust the number of officers and officer responsibilities to meet the organization's needs. For the 2023-2024 academic year, the officer roles were similar to previous years, but the number of officers increased to adjust for the number of members. We also restored the position of Publicity Chair to have a single Board Member in charge of managing our social media platforms. All Board Members attended weekly board meetings, and Board Members of each sector were required to meet with the Executive Board at least twice each quarter.

BMES at UCI membership is open to students of all majors and backgrounds. Our chapter has a range of membership options with varying benefits, dependent upon the selected add-ons. BMES at UCI is affiliated with the Division of Career Pathways (DCP) and Student Outreach and Retention (SOAR), and we work closely with other Engineering Student Organizations and the Department of Biomedical Engineering to support students of all backgrounds.

V.A. Chapter Officer Information

The BMES at UCI Executive Board for the 2023-2024 Academic Year consisted of one President, one Vice President, and one Treasurer. The structure was adjusted from previous years to adjust to our growing board, increase general board cohesion, and improve member retention. All three Executive Board Members worked together to oversee the Officer Board, hosting check-in meetings as well as event meetings for larger events. The three Executive Board Members also implicitly decided that each Executive Board Member would oversee the progress of and serve as the point of contact for specific sectors. All Executive Board Members were involved in the decision-making process and updated the others on events and concerns. Table 1 shows the breakdown of our Executive Board and summarizes each position's responsibilities.

Position	Officer	Responsibilities
President [Executive Board]	Christine Nguyen <u>chrisln5@uci.edu</u>	Serves as the leader of the board and organization. Oversees all club operations and external affairs. Point of contact for Faculty

Table	1:	2023-2024	Executive	Board.
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		and Graduate Students. Supervises the Project and Mentorship Sectors.
Vice President [Executive Board]	Ally Liu <u>liuai@uci.edu</u>	Oversees club relations amongst Board Members, general members, and committees within BMES with an emphasis on promoting board cohesion and member retention. Oversees relations and collaborations external to the club and professional associates. Supervises the Industry and Outreach Sectors.
Treasurer [Executive Board]	Lyna Luu <u>luuld@uci.edu</u>	Serves as the financial manager of the chapter. Supervises the Social Sector and the Publicity Team.

Table 2: 2023-2024 General Board.

Position	Officer	Responsibilities
Secretary	Dave Soliven <u>dcsolive@uci.edu</u>	Manages club communication, weekly email, and membership attendance system. Responsible for alumni contacts and events. Records meeting minutes and attendance.
Industry Correspondents	Akhil Chandekar <u>achandek@uci.edu</u>	Plans all events regarding career development,
Industry Correspondents	Joshua Varela j <u>cvarela@uci.edu</u>	academia, and industry engagement.
Outreach Coordinators	Neha Muvvala <u>nmuvvala@uci.edu</u>	
	Varu Vummidi <u>svummidi@uci.edu</u>	Organizes fundraisers, manages Jr. BME Program, and runs the Outreach Committee.
	Dean Zepeda <u>deanz1@uci.edu</u>	
Outreach Interns	Neela Gooty <u>ngooty@uci.edu</u>	Assists Outreach Coordinators in planning and facilitating outreach events and fundraisers.

	Anisha Rayapudi <u>arayapud@uci.edu</u>	
Assisting Consultants a	Anjella Manucat <u>amanucat@uci.edu</u>	Organizes all socials and activities to increase
Activities Coordinator	Annie Tang <u>annit12@uci.edu</u>	member engagement.
Activities Intern	Samra Rahman <u>samrar@uci.edu</u>	Assist Activities Coordinators in planning the Annual BMES Banquet.
Publicity Chair	Dathan Nguyen <u>dathann@uci.edu</u>	Manages social media accounts and advertises all club events.
	Anushka Chauhan <u>anchauha@uci.edu</u>	Runs the Mentorship program and manages
Mentorship Coordinators	Bri Meneses <u>bamenese@uci.edu</u>	all mentorship-related events such as social and professional development events.
Graphic Designer	Kayleigh Sim <u>kayleigs@uci.edu</u>	Designs BMES merchandise and creates all flyers for events. Manages chapter website.
	Christopher Tan <u>ctan12@uci.edu</u>	Plans and organizes projects workshops
Project Coordinators	Rohan Kunduru <u>kundurur@uci.edu</u>	competitions, and submissions for the National BMES Student Design
	Lucas Jones <u>lwjones@uci.edu</u>	Competition.
Desired Internet	An Tran <u>ant10@uci.edu</u>	Assists Project Coordinators in planning and
Project Interns	Jocelyn Lin <u>tzulinl@uci.edu</u>	facilitating project workshops.

V.B. Membership Breakdown

Undergraduate and graduate students were all welcome to become members of BMES at UCI. For the 2023-2024 Academic Year, BMES at UCI had five membership packages: Free, Basic, Mentorship, Project, and Premium. The free General Membership allowed students to attend General Meetings

and subscribe to our weekly emails. The Basic Membership Package had a fee of \$15 and came with numerous perks, including a free BMES at UCI T-shirt, new BMES stickers, free admission to our Fall Industry Conference and annual Industry Night, priority access to company tours, and a professional headshot. The Mentorship Package included the Basic Package perks and the Mentorship Program membership for an additional \$5. Mentorship members received access to Professional Mentors in academia, industry, or medicine. The Project Package was an additional \$15 for the entire year (for a total of \$30) or \$7 per quarter with Basic Package Perks, access to technical and entrepreneurial workshops and resources, free admission to Mini-Projects and MedTech Pitch Competition, and guidance for the project competitions, including the National BMES Student Design Competition. The Premium Package contained all perks (Base, Mentorship, and Project Packages) for a total of \$35. Students could join during any quarter and discounts were given depending on the quarter they joined.

BMES at UCI membership numbers have been trending upwards, and for the 2023-2024 Academic Year, the trend has continued. BMES at UCI had a total of 319 members, with 117 General Members, 83 Premium Members, 76 Base Members, 24 Mentorship Members, and 17 Project Members. Thus, the BMES at UCI Mentorship Program had 107 participants and the Project Program had 102 participants. Figures 1, 2, and 3 summarize the distribution of our members by membership type, majors, and year distribution. This year, BMES at UCI attracted several graduate students and continued to increase the variety of engineering and non-engineering majors, which were our main membership objectives for this year.



Figure 1: Membership breakdown for 319 BMES at UCI members.



Figure 2: Major distribution for 319 BMES at UCI members.



Figure 3: Year Distribution for 319 BMES at UCI members.

V.C. National BMES Membership

BMES at UCI has encouraged our Board Members and General Members to become National BMES Members for its perks for students. Table 3 lists out the National BMES Members in the BMES at UCI Chapter.

Table 3: National BMES Membership Breakdown.

Name	2023-2024 Position	Email
Christine Nguyen	President	chrisln5@uci.edu
Ally Liu	Vice President	liuai@uci.edu
Lyna Luu	Treasurer	luuld@uci.edu
Christopher Tan	Project Coordinator	ctan12@uci.edu
Neha Muvvala	Outreach Coordinator	nmuvvala@uci.edu
Anushka Chauhan	Mentorship Coordinator	anchauha@uci.edu
Varu Vummidi	Outreach Coordinator	svummidi@uci.edu
Lucas Jones	Project Coordinator	lwjones@uci.edu
Kayleigh Sim	Graphic Designer	kayleigs@uci.edu
Joshua Varela	Industry Correspondent	jcvarela@uci.edu
Dave Soliven	Secretary	dcsolive@uci.edu
Dathan Nguyen	Publicity Chair	dathann@uci.edu
Rohan Kunduru	Project Coordinator	kundurur@uci.edu
Matthew Lo	Member	lomk2@uci.edu

V.D. General Board Meetings

Each quarter, the Executive Board and General Board met weekly together on Monday evenings to discuss the events taking place that same week and the following week. Our General Board Meetings were held in person on the UCI campus with a Zoom option for those who were unable to attend due to sickness or emergencies. If a holiday or an event occurred on a Monday, the General Board Meeting was moved to a day when all Board Members were free. These meetings were held on Zoom to accommodate the Board Members' schedules and they were also recorded for those who could make it. During meetings, the Board Members of the position in charge of the event would share information about their event, the itinerary, the slides, the advertisement plan, and the assistance needed from the Board Members. Our Secretary took notes on our Board Meeting Agenda Documents (Figure 4).

Event Discussion	
Event	Notes
Spring GM MDEA 4/3 6:30-7:30	 Master Doc: Spring GM Master Document Announcement Blurb & Flyer Status: Complete Activity Balloon cart racing? Help getting supplies if we do this Game night? Help bringing games Slides: Spring GM Slides
Bowling 4/3 Irvine Lanes 8-9PM	Master Doc: Spring Bowling Master Doc Announcement Blurb & Flyer Status: Complete Spring Bowling Rides Sheet
Jr. BME Pitch Workshop 4/7 MDEA 2-4 PM	 Master Doc: Pitch Workshop Master Document Announcement Blurb & Flyer Status: Complete - Slides: pitch workshop Pitch activity?
Prototyping Proposal Kickoff 4/9 Location Time	Master Doc: Announcement Blurb & Flyer Status: Not Requested Slides:

Figure 4. Notes from a General Board Meeting Agenda.

The table below contains the dates of the Board Meetings for each quarter.

Table 4: General Board Meeting	dates for the 2	2023-2024 Academic Year.
---------------------------------------	-----------------	--------------------------

Fall	Winter	Spring
9/25/23	1/8/24	4/1/24
10/2/23	1/12/24	4/8/24
10/9/23	1/26/24	4/15/24
10/16/23	1/29/24	4/22/24
10/23/23	2/5/24	4/29/24
10/30/23	2/12/24	5/6/24
11/6/23	2/20/24	5/13/24
11/12/23	2/26/24	5/20/24
11/20/23	3/4/24	5/28/24
12/4/23	3/11/24	6/3/24*

Each Board Meeting has a respective agenda that the President creates. The document contains Reminders, To-Dos, What's New, List of Events to Discussion, Post-Event Feedback, and Additional Position Updates (Fig. 5). After the President creates the agenda, the Vice President and Treasurer then add their updates and topics that must be discussed at the meeting. Afterward, the President sends the Board Meeting Agenda to all Board Members to view and come ready with updates. The What's New section is news that the Executive Board would like to share with Board Members or topics that General Board Members would like to discuss.

	Post-Event Discussion		
Reminders!	Event		
Winter Master Docs due April, April 8	Study Hours Master Document		
Budget for Spring due Monday, April 8 Photos in by Monday, April 8	Cha for Tea Fundraiser Master Document		
Exec apps due Saturday, April 6 at 11:59 PM			
ALL Spring Abstracts due APRIL 28!!	Other Board Updates		
To-dos	Position	Update	
Put in Flyer and Advertisement requests for Spring: Advertisement/Flyer Requests	Exec	 Interns Gcal, slack, drive 	
Prototyping/Proposal Kickoff Pienie	Graphic	•	
2 weeks in advance	Activities	•	
Please update your requests with new info as needed Add pictures to the BMES Drive	Secretary	 In the next email, can you announce to pick up club shirts and stickers T.T 	
Winter 2024: D Winter	All	Email labs for lab tours (BME Day) Labs for Research Symposium	

Figure 5. Additional notes from a General Board Meeting Agenda.

The Executive Board continued to implement a "Master Document" template for Board Members to fill out for their events. The purpose of the Master Document is to standardize and compile all information into one place for easier access and quicker compilation for the Chapter Development Report. During the Board Meetings, the President would share her screen and open the Master Documents which detail the event logistics and itinerary. In the Board Meeting following an event, all Board Members contributed their thoughts about how the event turned out and provided constructive feedback for future events. This is especially helpful for the next academic year if the 2024-2025 Officers host similar events. Our Secretary recorded Meeting Minutes on our Board Meeting Document and Master Document for each event and discussion topic.

The Executive Board Meetings began in Spring 2023 to discuss plans for the year and continued to take place at the beginning of every quarter to discuss any changes that needed to be made to best support our Board Members. The Executive Board also met with the Faculty Advisor at the beginning of each quarter to receive feedback about our events and ask for additional support regarding advertisement, faculty participation, and project ideas. The Executive Board held check-in meetings at the beginning and middle of the quarter with each Officer Board position to discuss their progress with events, their mental health and work-life balance, brainstorm event ideas and review their budget (if needed).

The Executive Board also scheduled event meetings with the Officers in charge of larger events such as the Fall Industry Conference, Industry Night, MedTech Pitch Competition, and BME Day. The

objective of these meetings was to check in with Officers about the progress in planning the event and to discuss the responsibilities of the Executive Board, Board Members, and additional volunteers during the events. The responsibilities included checking in and scheduling Officer shifts, contacting and advertising to Faculty, Alumni, and Graduate Students (Graduate Association of Biomedical Engineering Students), purchasing materials, and booking venues.

In the 2023-2024 Academic Year, the Executive Board ensured to celebrate and acknowledge the efforts of our Board Members for each event, especially during Board Meetings. A new change we implemented during Board Meetings was each of the Executive Board Members covered a different section of the Board Meeting instead of the President leading the entire meeting. We also developed a feedback form at the end of each quarter to compile changes that need to be made to make the next quarter even more successful.

V.D.i. Board Traditions

One of our biggest goals in the 2023-2024 Academic Year was to increase and improve board cohesion and camaraderie. Prior to Board Meetings, Board Members would convene at the Anteater Recreation Center to catch up and compete in some friendly pickleball games. This was very spontaneous and was not hosted or planned by the Executive Board. Board members enjoyed taking a moment to step away from academics and get to know each other more through pickleball.

In addition, every now and then, General Board Members or Executive Board Members would also bring food, snacks, or sweets to share, especially for holidays, birthdays, or the end of a successful quarter. Board Members love the treats, and Board Meetings feel welcoming and enjoyable.

Our Vice President started a tradition of adding a meme, GIF, or funny photo at the top of the Board Meeting Agendas as an icebreaker. It drives conversation among Board Members and promotes camaraderie on our Board. It is nice to enjoy a little laugh and conversation before we kick off our meeting to discuss the details of our upcoming events.

After each event, Board Members would acknowledge and congratulate each other for a successful event. This helped create an uplifting atmosphere within our Board and promoted a warm, encouraging, and supportive environment for all Board Members, prompting them to be excited about BMES and contributing to the UCI Community. Each quarter, individual Board Members or Executive Board Members would plan a casual hangout for all Board Members, which we called "Board Bonding". In the Fall Quarter, one of our Project Coordinators hosted a potluck and Secret Santa (in which all 18 Board Members participated and attended) where we learned more about each other's quirks, likes, and hobbies. Board Members were able to enjoy some poker (or learn how to play poker), Nintendo Switch sports, and food. In the Winter Quarter, our Board Members grabbed some Indian food before heading to karaoke to sing our favorite songs together. In Spring Quarter, the Board Members enjoyed a beach day together while celebrating one of the Board Member's birthdays. The Board Members also stopped by a Thai restaurant to grab dinner together.



V.E. General Meetings

General Meetings were held the first week of each academic quarter. The content of the meeting varied but its intention remained consistent throughout the year. BMES at UCI used these meetings to welcome students back to school after breaks and thus emphasized hosting fun activities and lighthearted socials. The majority of the general meetings had some off-campus entertainment such as skating or bowling. Specifics for the time, date, and content of these meetings can be found in the table below.

Quarter	Date and Time	Agenda
Fall	10/4/23 6:30 PM - 8:00 PM	Welcome to BMES!

Table 5: General Meeting dates for the 2023-2024 Academic Year.

Winter	1/11/24 6:30 PM - 10:00 PM	Game Night & Roller Skating Social
Spring	4/3/24 6:30 PM - 9:00 PM	Balloon Car Racing & Bowling

V.E.i. Welcome to BMES Meeting

Every year, during the first week of the Fall Quarter, BMES at UCI hosts our General Meeting, which we call our "Welcome to BMES" Meeting, to introduce our Board Members, programs, and organization as a whole. We used this General Meeting to break the ice with our members. The goal of the meeting is to welcome general members who are interested in BMES at UCI, the medical device industry, biology, medicine, or engineering and share the opportunities that we offer or plan to offer throughout the year to support them in achieving their professional or academic goals. It is also a meeting to socialize and allow students to meet their peers and BMES at UCI Board Members for the 2023-2024 school year. Each Board Member briefly introduced themselves and shared planned events for their respective sector which include project, mentorship, industry, outreach, and activities. Afterward, students were able to play an icebreaker Bingo game, which we called BMES Bingo, and the winners were able to win Krispy Kreme vouchers and Starbucks gift cards! Boothing at the Fall Anteater Involvement Fair and advertising very early on led to a huge turnout. After the activity, students had the option to pay their membership fees and pick up their member T-shirts if they signed up for our base membership. Attendees also interacted with board members to ask questions about courses, internships, research, and college life. The meeting was a memorable way to give a warm welcome to students returning to campus and introduce them to BMES and this meeting left a lasting impact throughout the school term since attendance was the highest we have seen in past years.



Date	Audience	Attendance	Cost
10/4/23 6:30 PM - 8:00 PM	Undergraduate Students Graduate Students	77 Undergraduate Students	\$0.00

V.E.ii. Winter General Meeting: Game Night

To start the Winter Quarter, BMES at UCI hosted our second General Meeting of the year which incorporated an introduction to our Winter Quarter events and a review of our organization's mission and memberships. Each position was able to announce their upcoming events as needed. To break the ice for new members and have some fun with our returning members and mentorship groups, we hosted a game night with board games and a Super Smash Bros Tournament. The goal of the meeting is to welcome new general members and returning members who are interested in BMES at UCI, the medical device industry, biology, medicine, or engineering and share the opportunities that we offer or plan to offer throughout the year to support them in achieving their professional or academic goals. It also served as an opportunity for students to socialize with their peers and fellow BMES at UCI Board Members. During the event, students had the option to pay their membership fees and pick up their member T-shirts if they signed up for our base membership. Attendees also interacted with board members to ask questions about courses, internships, research, and college life. The meeting was a memorable way to give a warm welcome to students returning to campus.



Date	Audience	Attendance	Cost
1/11/24 6:30 PM - 7:30 PM	Undergraduate Students Graduate Students	44 Undergraduate Students	\$0.00

V.E.iii. Spring General Meeting: Balloon Car Racing

For the first meeting of Spring and the last General Meeting of the 2023-2024 Academic Year, BMES at UCI decided to host a fun and never-before-done Balloon Car Building & Racing Competition. We first summarized the event plans for the Spring Quarter and highlighted events coming up in the first three weeks of the quarter. Each sector announced their respective events and encouraged members to come to events that they were interested in. After announcements, students were prompted to form groups of 4 to 6 members and were provided with materials to build a balloon-powered car. These materials included tape, CDs, skewers, straws, plastic cups, paper, and scissors. The teams had 30 minutes to build their car before the teams would compete against each other to see whose car traveled the furthest! The general meeting was intended to share upcoming opportunities and encourage members to meet and converse with other members and Board Members. The meeting also welcomed new members, since we emphasized that students can become members any time throughout the school year. When the cars were put to the test, the outcomes were hilarious, as many cars failed or were incomplete. Members enjoyed laughing and competing against one another, but one car traveled about 5 feet and that team took the win! Afterwards, the members joined us for some more socializing at the Bowling Social!



Date	Audience	Attendance	Cost
4/3/24	Undergraduate	26 Undergraduate	\$26.26
6:30 PM - 7:30 PM	Students	Students	

VI. Treasury Report

The Treasurer of BMES at UCI manages all financial operations and accounts. The responsibilities of the Treasurer include managing chapter expenditures and revenue, supporting and organizing fundraisers, and obtaining funds from external sources. The primary forms of cash receipts are campus fundraisers, institutional grants, department funding, and membership fees. The significant financial contributors are the UCI Department of Biomedical Engineering and the Engineering Student Council. This year, BMES at UCI was able to obtain several sponsorships from local medical device and biotechnology companies to support our events through a Corporate Sponsorship Package. Companies covered expenses such as cash prizes, food, and refreshments. A majority of our funds were from event fee revenue and fundraisers, which covered expenses when we lacked financial support from our external sources.

The Treasurer collaborated with the Outreach Coordinators to sell food at the Engineering Food Fair hosted by the Engineering Student Council (ESC) to support engineering student organizations and several off-campus fundraisers at Cha4Tea, Blaze Pizza, and Sgt. Pepperoni's Pizza. The Treasurer also supports General Board Members in drafting budgets for events. All items are approved by the Treasurer before purchase and the purchaser will be reimbursed. The report summarizes quarterly deposits, expenses, and bank reconciliations.

VI.A. Chapter Balance Sheet

Chapter Balance Sheet					
	Fall 2023Winter 2024Spring 2024				
Starting Balance	\$11,203.01	\$13,304.86	\$13,890.74		
Expenses	\$3,333.50	\$2,263.96	\$9000.00*		
Deposits	\$5,435.35	\$4,077.56	\$4000*		
Net Balance	\$13,304.86	\$13,890.74	\$8,890.74*		

Table 6: Chapter Balance Sheet for the 2023-2024 Academic Year.

*Projected amount



Figure 6: Breakdown of annual chapter expenses by sector. BMES at UCI has 5 different sectors: Outreach, Societal Impact (Project), Industry and Professional Events, and Mentorship. All remaining expenses (such as club merchandise, Campus Organization fees, and National BMES Conference fees) were grouped under Administrative Expenses



Figure 7: Breakdown of revenue by funds type (membership, external funding, fundraisers, event fees, sponsorships, or merchandise sales). The primary means of revenue is further detailed in the next section.

VI.B. Primary Means of Revenue

Below is a breakdown of revenue and funds earned throughout the year by event.

Event	Net Amount Raised
Membership Dues	\$4,437.52
Corporate Sponsorship Package	\$1300
Blaze Pizza Fundraiser	\$86.75
Fall Cha4Tea Fundraiser	\$24.03
Be Mine with BMES	\$241.00
Engineering Food Fair	\$279.81
Sgt. Pepperoni Fundraiser	\$145.00
Winter Cha4Tea Fundraiser	\$38.88
Spring Sgt. Pepperoni Fundraiser	\$70.00

Table 7: Chapter's Primary Means of Revenue for the 2023-2024 Academic Year.

VI.B.i. Membership Dues

The majority of revenue was generated from Membership Dues. As stated previously in the Membership Breakdown section, our membership options for the 2023-2024 Academic Year consisted of the Basic Package (\$15), Mentorship Package (\$20), Project Package (\$30 or an additional \$7 quarterly), and Premium Package (\$35). Students were also encouraged to be a General Member (being added to our newsletter and attending our General Meetings) if they did not want to pay to become a member. Membership dues were collected throughout the year, usually in the first 3 weeks of the quarter. Due to the growth of the organization, the membership dues covered the expenses for our more costly events such as the MedTech Pitch Competition and the Industry Conference.

VI.B.ii. Corporate Sponsorship Package

For the first time, BMES at UCI developed a Corporate Sponsorship Package as a method to increase donations from nearby medical technology companies. The package was emailed to both nearby and out-of-state medical technology companies, such as Medtronic, Edwards Lifesciences, and Microvention. Companies were able to choose from a wide selection of offers that included advertisement on merchandise or hosting workshops in exchange for a general donation or support for a specific event. Additionally, we fostered better relationships with nearby companies as company representatives were able to come to our events and interact with our general members. The donations

from the corporate sponsors were solely used to improve the quality of our events, specifically the MedTech Pitch Competition.

VI.B.ii. Blaze Pizza Fundraiser

At the beginning of the school year, BMES at UCI Outreach decided to host a fundraiser social at a local pizza chain called Blaze Pizza right after our first General Meeting. The purpose of this event was to connect newer members with older students in a casual environment to discuss experiences and enjoy some pizza. We also wanted to hold a low-stakes fundraiser that would raise some money that would allow us to provide food at General Meetings since the funding we receive from UCI does not allow for this. With the pizza store right across the street from campus, it was easily accessible for all students who live on and off campus to attend. Another great aspect of the event was that it was held right after our Mentorship Meet & Greet so students were able to walk over with other members and ask Board Members and professional mentors any questions on the way there. The turnout was moderate, likely due to the exam season just beginning. Most attendees participated in the fundraiser by ordering pizza and drinks as well as hanging around after and socializing with one another. We were able to meet a lot of new members personally and answer any questions they had in a casual setting. Our new members and Board Members were able to get to know each other as well. Through this fundraiser, we were able to raise \$86.75, which was lower than we expected to earn, but it was enough for some yummy meeting snacks and refreshments. Additionally, when planning the fundraiser, Blaze was unresponsive although we were proactive in filling out all the forms and reaching out. However, socializing with our new members was the most valuable aspect of this fundraiser that night.

VI.B.iii. Fall Cha4Tea Fundraiser

We decided to host an additional fundraiser towards the end of the year with a boba shop right off campus that a lot of UC Irvine students frequent, Cha for Tea. The purpose of this event was to raise money for our future events. We paired it with a resume workshop. This workshop was less formal so students were able to ask more experienced peers for help with improving their resume while enjoying food and drinks from Cha. Overall, we had a lot of people support during the fundraiser! Even after getting help with resume improvements, some members decided to stick around and ask more questions or talk to board members. This event increased communication between board members and general members which is always something we strive to accomplish. We were able to make \$24.03 from the fundraiser, which will go towards food and fees for our events in Winter and Spring!

VI.B.iv. Be Mine with BMES

This fundraiser was themed around Valentine's Day. It began the day after the previous fundraiser at Sgt. Pepperoni to give people as much time as possible to complete the pre-order form. This form

allowed students to place orders in advance for pink and red roses with baby's breath for \$3 and \$4, respectively. These prices were selected because the price of red roses was anticipated to be marked up during the week of Valentine's Day (Week 6). An additional fee of \$2 could be added to add a red, white, or pink bow and a note, and an extra \$1 for a Valentine's Day-themed sticker designed by our graphic designer. Payments were made in advance to the BMES Venmo or Zelle and pick-up locations were designated for the BMES events during Week 6, which were on Tuesday from 6:30-7:30 PM and Thursday from 6:30-7:30 PM. Submissions from the form were closed on the Sunday before Week 6. Flowers were purchased from Trader Joe's on Monday of Week 6 to ensure freshness. The flowers were stored in water with the flower food packets provided. Their stems were regularly maintained and the water was changed daily. We received 18 submissions on our Google form, so we were able to coordinate with each person about their order if needed. However, because of the relatively small number of orders, we agreed to deliver orders outside of the previously designated times. We prepared each day's orders in the evening before each event. To ensure the outside deliveries were made, we were preparing orders every day that week. If this event were to be repeated, the designated times should be more strictly enforced to avoid confusion and to streamline the process. Additionally, more help could have been recruited by the other outreach coordinators. To have more engagement with the fundraiser, this event also has more potential as a booth on our Ring Road. However, booking a booth is a process that needs to be started months in advance without interfering with other school events that may have booths.

VI.B.v. Engineering Food Fair

The Engineering Food Fair is an event hosted by UC Irvine's Engineering Student Council (ESC). BMES at UCI joined the Engineering Student Council (ESC) and other Engineering Student Organizations (ESOs) for an Engineering Food Fair located on Ring Road. ESOs were invited to sell food along Ring Road to raise money for their respective organizations. Each organization brought a different food item to sell in a market style. All our booths were positioned in a place where there was predicted to be a lot of foot traffic during the day. The money went towards project materials, workshop supplies, event snacks, refreshments, event venues, and club fees. The goal of the event was to raise money for BMES at UCI to be able to support and provide more opportunities for our members, including hands-on project workshops, larger cash prizes for the MedTech Pitch Competition, and connecting members with alumni and faculty. Since selling at food fairs in prior years was successful, we wanted to join the Engineering Food Fair as a way to raise more money for BMES at UCI. We decided to sell pizza as it is a popular lunch food in which we were able to fundraise money to cover a fraction of the Winter Quarter expenses.

VI.B.vi. Sgt. Pepperoni Fundraiser

As a fundraising initiative, we coordinated with our local Sgt. Pepperoni to arrange a fundraiser. This was done by submitting a request form with three ideal dates. We received an email confirmation for our first, most ideal date within a few days of submitting the form. They provided a flyer and were very responsive to the questions we had. All Sgt. Pepperoni's fundraisers are between the hours of 4 and 8 PM, so there is no flexibility in that regard. The timing was convenient for students to attend either before or after the general meeting event that day between 6:30-7:30 PM. The general meeting was a mentorship event, so mentorship groups were incentivized to support the fundraiser by being awarded a point if two members of the group attended. Most of the attendees went before the general meeting, from around 5:30-6:30 PM. Of these attendees, the most common orders were pizzas that could be shared between groups of people. Students took up two benched tables in the restaurant, with one table remaining for other customers. In the future, we can work with the manager in advance to clear more space or move outside as well. The workers were very amicable and prepared the food quickly, with no more than 15 minutes of waiting time. The feedback from this fundraiser was very positive, with support for doing another fundraiser with them in Spring. The agreement between BMES and Sgt. Pepperoni was 20% of all sales would be donated to BMES. Of the \$711.12 net sales, we made \$145.00. Overall, for how convenient it was to set up this fundraiser as well as the turnout and profit, this was a very successful fundraiser and we look forward to working with them again soon.

VI.B.vii. Winter Cha4Tea Fundraiser

Our final fundraiser of the Winter Quarter took place during Week 9, following our Study Hour event, at Cha once again. The general members along with the board members made a good population of fundraiser attendees. The students were able to destress while drinking boba and eating popcorn chicken, sweet potato fries, and more. This event was a good opportunity for underclassmen to ask upperclassmen for advice about classes, as well as extracurriculars such as research and internships. Especially mentees who attended with their mentors were able to connect and touch base before finals season started. Many students, especially those in the rigorous environment of our major, tend to forget to connect with those around them in the process of maintaining their emotional and physical well-being. Events like these, no matter how many people attend, can serve as a reminder of this and allow students to decompress together. This event was easy to set up weeks in advance since we have done fundraisers with Cha for Tea in the past.

VI.B.viii. Spring Sgt. Pepperoni Fundraiser

We had previously hosted a fundraiser with Sgt. Pepperoni's during the winter quarter, and given the success we had with it then, we aimed to repeat that for the spring quarter. We followed the same procedures to set up a fundraiser with the local Sgt. Pepperoni's across campus in Campus Plaza, with fixed fundraising hours from 4-8 pm. Since the day of the fundraiser was a Wednesday, there was also

an ultrasound workshop planned on the same day at 6:30-7:30 PM. By setting up the time this way, we hoped to entice people to go to Sgt. Pepperoni's earlier and come straight to the meeting after eating delicious pizza or bringing a box. For those who had evening classes, there would still be time to head over to grab a pizza, given the proximity of the restaurant to campus. It was essentially an evening with BMES, filled with food, socializing, and learning new skills. In the winter quarter, the event went quite well, with friendly workers promptly serving pizza and a good number of students attending. The agreement was that BMES would receive 20% of the profits of all sales, and we were able to make \$70.

VI.C. Financial Management

The Treasurer of BMES at UCI utilized methods of the previous treasurer with the organizing and recording of all transactions– cash disbursements, cash receipts, monthly bank reconciliation, and quarterly summaries. The bank reconciliation was completed monthly to ensure that all records were up to date. This also eased the compilation of transactions for the quarterly summary. Reimbursements were managed by the Treasurer alone after receiving receipts from the purchaser. Additionally, a separate record of external funding sources was also recorded. Shown in Figures 8 through 11 are samples of the spreadsheet used by the Treasurer to manage financial transactions throughout the academic year.

Beginning Balance 8/1/23	11,203.01
Cash Disbursements	\$62.00
Cash Receipts	\$0.00
Other	\$0.00
Ending Balance 8/31/23	\$11,141.01
Beginning Balance 9/1/23	\$11,141.01
Cash Disbursements	\$1,368.55
Cash Receipts	\$452.24
Other	0
Ending Balance 9/30/23	\$10,224.70
Beginning Balance 10/1/23	\$10,224.70
Cash Disbursements	\$577.61
Cash Receipts	\$3,254.92
Other	0
Ending Balance 10/31/23	\$12,902.01

Figure 8: Bank reconciliation spreadsheet used to account for monthly transactions.

				Accounts					
Date	Name	Description	Amount	Gate Receipts	Funding	Fundraising	Sales	Returns	Status
9/30/23	September Membership Fees	Membership Fees (Venmo)	\$359.24				\$359.24		Received
9/30/23	Project Symposium	Pitch from 2 other ESOs (Venmo)	\$93.00					\$93.00	Received
10/18/23	Meet & Greet	Meet & Greet Food (Department)	\$144.16		\$144.16				Received
10/24/23	P-Council Fall Funding	P-Council Fall Funding (ASUCI)	\$1,023.00		\$1,023.00				Received
10/31/23	October Membership Fees	Membership Fees (Cash)	\$235.00				\$235.00		Received
10/31/23	October Membership Fees	Membership Fees (Venmo)	\$1,563.76				\$1,563.76		Received
10/31/23	Project Symposium	Pitch from 6 other ESOs (Venmo)	\$279.00					\$279.00	Received
10/31/23	Industry Conference	Industry Conference Fees (Venmo)	\$10.00	\$10.00					Received
11/1/23	Blaze Fundraiser	Blaze Fundraiser Earnings (ASUCI)	\$86.75			\$86.75			Received
11/18/23	Industry Conference	Industry Conference Food (Department)	\$400.92		\$400.92				Received
11/30/23	November Membership Fees	Membership Fees (Cash)	\$280.00				\$280.00		Received
11/30/23	November Membership Fees	Membership Fees (Venmo)	\$815.52				\$815.52		Received
11/30/23	Capture the Flag	Participant Fee (Venmo)	\$15.00	\$15.00					Received
11/30/23	Industry Conference	Industry Conference Fees (Venmo)	\$70.00	\$70.00					Received
11/30/23	Technical Triathlon	Participant Fee (Venmo)	\$35.00	\$35.00					Received
12/12/23	Student Center Room Fee	For not using room (Venmo)	\$25.00					\$25.00	Received
		Venmo Total:	\$3,265.52						
		Cash Total:	\$515.00						
		ASUCI Total:	\$1,109.75						
		Department Total	\$545.08						
		Total:	\$5,435.35						

Figure 9: Cash receipts spreadsheet to account for all revenue and funding, including status.

				Accounts					
Date	Payment to	Description	Amount	Supplies	Food/Drinks	Gifts	Venue	Fees	Reimbursed?
8/25/23	Christine	(Fall) AIF 2023 Booth Registration Fee	\$12.00					\$12.00	\checkmark
8/25/23	Christine	RCO Registration Fee	\$50.00					\$50.00	~
9/17/23	Lyna	Club T-Shirts	\$1,368.55	\$1,368.55					\checkmark
10/2/23	Lyna	Cream Cheese for Project Symosium	\$5.99		\$5.99				\checkmark
10/4/23	Lucas	National BMES Registration	\$30.00					\$30.00	\checkmark
10/18/23	Anushka	Meet & Greet Food	\$144.16		\$144.16				~
10/20/23	Dathan	Social Bonfire Firewood Stuff	\$16.13	\$16.13					\checkmark
10/20/23	Christine	Project Symposium Pizza	\$160.82		\$160.82				~
10/20/23	Lyna	Board Nametags, AIF Handouts, Candy	\$84.02	\$78.08	\$5.94				\checkmark
10/20/23	Lyna	Water for Jr.BME	\$28.04		\$28.04				~
10/20/23	Lyna	Mentorship Bonfire Materials (Costco)	\$80.03		\$80.03				~
10/24/23	Chris	SOLIDWORKS Workshop Supplies	\$28.42	\$28.42					\checkmark
11/6/23	Bri	Pizza for Mentorship Bonfire	\$39.33		\$39.33				\checkmark
11/15/23	An	Technical Triathlon Winner	\$75.00			\$75.00			\checkmark
11/15/23	Christine	Technical Triathlon Winner	\$75.00			\$75.00			\checkmark
11/18/23	Lyna	Industry Conference Food	\$400.92		\$400.92				\checkmark
11/22/23	Anushka	Mentorship Supplies	\$122.09	\$122.09					\checkmark
11/28/23	ASUCI Acc	Cross-ESO Projecct Symposium Venue	\$189.00				\$189.00		\checkmark
11/28/23	ASUCI Acc	Industry Night Venue	\$255.00				\$255.00		\checkmark
12/5/23	Christine	Industry Conference Parking	\$72.00					\$72.00	\checkmark
12/5/23	Ally	Industry Conference Parking	\$72.00					\$72.00	\checkmark
12/12/23	Student Center	For not using room	\$25.00					\$25.00	\checkmark
		ASUCI Total:	\$469.00						
		Venmo Total:	\$2,319.42						
		Department Total:	\$545.08						
		Total:	\$3,333.50						

Figure 10: Cash disbursements spreadsheet to record all expenses and reimbursements.

Fall Qu	arter		
Event	Amount Granted	Amount Spent	Need to Return
Networking Night (Meet & Greet) \$150	\$150.00	\$144.16	Reimbursement
BMES Mini-Conference \$500	\$500.00	\$400.92	Reimbursement
ESC Funding	\$1,023.00	\$927.00	No
	Am	ount to Return:	\$0.00
Winter Q	uarter	y.	n 11. 17.
Event	Amount Granted	Amount Spent	Need to Return
Industry Night \$250	\$250.00	\$249.95	Reimbursement
ESC Funding	\$575.00	\$535.00	No
	Am	ount to Return:	\$0.00
Spring Q	uarter	7	0
Event	Amount Granted	Amount Spent	Need to Return
BME Day \$250	\$250.00	\$184.26	Reimbursement
	Am	ount to Return:	\$0.00

Figure 11: External funding spreadsheet to record all incoming grant funding

VII. Chapter Activities

List of Chapter Activities

VII.A. Fall Quarter 2023 Events Summary

Date	Event	Category
9/25/23	Anteater Involvement Fair	Social or Other
9/29/23	Welcome Week Bonfire	Social or Other
10/2/23	Cross-ESO Project Symposium	Societal Impact
10/4/23	Art of Engineering	Social or Other
10/4/23	Welcome to BMES Meeting	Social or Other
10/5/23	SolidWorks Workshop	Societal Impact
10/6/23	Cross-ESO Bonfire	Social or Other
10/18/23	Midterm Study Session	Social or Other
10/18/23	Mentorship Meet & Greet	Mentoring
10/18/23	Blaze Pizza Fundraiser	Social or Other
10/20/23	Inari Medical Company Tour	Industry and Professional Development
10/21/23	BMES Around the World	Social or Other
10/22/23	Jr. BME: Welcome Meeting	Outreach
10/24/23	Coding Workshop	Societal Impact
10/25/23	Mentorship Bonfire	Mentoring
10/30/23	Study Session	Social or Other
11/1/23	Portola High School Visit	Outreach
11/1/23	Division of Career Pathways (DCP) Resume Workshop	Industry and Professional Development
11/1/23	Microvention Info Session	Industry and Professional Development

11/5/23	Jr. BME: Java Programming	Outreach
11/7/23	Arduino Workshop	Societal Impact
11/8/23	Mentorship Reveal	Mentoring
11/13/23	Study Session	Social or Other
11/13/23	Fall Industry Conference	Industry and Professional Development
11/15/23	Technical Triathlon	Societal Impact
11/18/23	Valorant Social	Social or Other
11/19/23	Jr BME: Arduino 101	Outreach
11/20/23	Movie Night with SWE & SHPE	Social or Other
11/26/23	Jr. BME: Onshape Workshop	Outreach
11/26-12/8/23	Holiday Canned Food Drive	Outreach
11/29/23	Portola High School Visit	Outreach
12/6/23	Study Hours	Social or Other

VII.B. Winter Quarter 2024 Events Summary

Date	Event	Category
1/11/24	Woodbridge High School Visit	Outreach
1/11/24	Winter GM: Game Night	Social or Other
1/11/24	Roller Skating Social	Social or Other
1/16/24	Mini Projects: Design	Societal Impact
1/18/24	Pre-Industry Night	Industry and Professional Development
1/22/24	Industry Night	Industry and Professional Development
1/27/24	MedVeda Hack-A-Thon	Outreach
1/28/24	Jr. BME: Transfers & Alumni Talk	Outreach

1/30/24	Mini Projects: Build & Assembly	Societal Impact
2/1/24	Mentorship Trivia	Mentoring
2/1/24	Sgt. Pepperoni's Pizza Fundraiser	Social or Other
2/2-2/11/24	Be Mine with BMES Fundraiser	Social or Other
2/6/24	Entrepreneurial Speaker Night	Societal Impact
2/8/24	Cookie Decorating Social with ASME	Social or Other
2/11/24	Jr. BME: You Light Up My Heart! (Arduino Workshop)	Outreach
2/13/24	Ideation Workshop: MedTech Pitch Competition Kickoff	Societal Impact
2/15/24	Phillips Medisize Info Session	Industry and Professional Development
2/22/24	Grad School, Med School & Industry Panel	Mentoring
2/23/24	Engineering Food Fair	Social or Other
2/25/24	Jr. BME: Premedical Track Panel	Outreach
2/26/24	E-Week Kickoff Fair	Social or Other
2/27/24	MedTech Prep Workshop	Societal Impact
3/2/24	Med Tech Pitch Competition	Societal Impact
3/2/24	UCI Homecoming	Social or Other
3/3/24	Jr. BME: CADuino Workshop	Outreach
3/7/24	National BMES Kickoff	Societal Impact
3/7/24	Cha Fundraiser	Social or Other
3/14/24	Mentorship Study Hours	Mentoring
3/15/24	ESO Awards Banquet	Social or Other

Date	Event	Category
4/3/24	Spring GM: Build a Car!	Social or Other
4/3/24	Bowling Social	Social or Other
4/7/24	Jr. BME: Pitch Workshop	Outreach
4/9/24	Prototyping & Proposal Kickoff	Societal Impact
4/10/24	Mentorship Picnic	Mentoring
4/12/24	Medtronic Company Tour	Industry and Professional Development
4/14/24	Jr. BME Workshop: Entrepreneurship	Outreach
4/16/24	Research Symposium	Industry and Professional Development
4/17/24	Cross-Chapter Trivia Night: Pt. 2	Social or Other
4/20/24	Celebrate UCI	Social or Other
4/21/24	BME Day	Outreach
4/23/24	Proposal Timeline Check-In	Societal Impact
4/24/24	Careers in BME Panel	Mentoring
4/28/24	Jr. BME Workshop: Project Presentations	Outreach
5/1/24	Sgt. Pepperoni's Fundraiser	Social or Other
5/1/24	Ultrasound Workshop	Social or Other
5/4/24	Charity Field Day	Outreach
5/7/24	Prototyping Check-In	Societal Impact
5/8/24	Mentorship Scavenger Hunt	Mentoring
5/15/24	Mask Decorating Social	Social or Other
5/19/24	Jr. BME Mini-Banquet	Outreach
5/21/24	Proposal Review Session	Societal Impact

VII.C. Spring Quarter 2024 Events Summary

5/32/24	BMES Banquet	Social or Other
5/25/24	INSPIRE	Outreach
5/29/24	Cha Fundraiser	Social or Other

VIII. Social or Other Activities

The Social Sector of BMES at UCI was tailored to create a welcoming and lighthearted environment for our members. We are well aware of the stressors that college students face and as such felt it was essential to have events specifically geared towards getting to know other students and participating in leisure activities. Following feedback from previous years it was especially evident that members of BMES at UCI enjoyed events such as Bonfires, and game nights. Thus we held similar events this year to great success! Bowling Social was a new introduction this year to kick off the beginning of the Spring quarter. It had a great turnout and was an exciting opportunity to socialize in a fun and competitive environment. Our final and biggest social event of the year is the Banquet which takes place in the Spring quarter and is a culminating event that celebrates the hard work of our members and their friends. The event will be available to all students regardless of major! Social events for BMES at UCI for the 2023-2024 school year were a great blend of old and new experiences that worked to bring students closer together.

Date	Event
9/25/23	Anteater Involvement Fair
9/29/23	Welcome Week Bonfire
10/4/23	Art of Engineering
10/6/23	Cross-ESO Bonfire
10/18, 10/30, 11/13/23	Study Hours
11/17/23	Glow-in-the-Dark Capture the Flag Fundraiser
11/18/23	Valorant Social
11/20/23	Movie Night with SWE & SHPE
12/6/23	Study Hours
1/11/24	Roller Skating Social
2/8/24	Cookie Decorating Social with ASME
2/26/24	E-Week Kickoff Fair

Table 8: List of Social or Other Activities.
3/2/24	UCI Homecoming
3/15/24	ESO Awards Banquet
4/3/24	Bowling Social
4/20/24	Celebrate UCI
5/1/24	Ultrasound Workshop
5/15/24*	Mask Decorating Social
5/23/24*	BMES Ball

* Future Event

Fall Quarter

VIII.A. Anteater Involvement Fair

The Anteater Involvement Fair (AIF) was an event hosted by the Office of Campus Organizations and Volunteer Programs (COVP) where student organizations were able to booth on campus and recruit members. BMES at UCI boothed for all 5 hours of the event to recruit members for the upcoming school year. Our goal was to speak to at least 200 students, advertise our events, provide our email sign-up form, Instagram, and Discord, and allow them to spin a prize wheel. To achieve this, we made a tri-fold with pictures and descriptions, printed handouts with QR codes and upcoming events, prepared an elevator pitch, and made QR codes for easy sign-up. As students approached our booth, we offered a spin-off of our prize wheel for students to have a chance to win candy, a T-shirt, or a BMES sticker if they followed our Instagram or joined our Discord/mailing list. At this event, we also promoted our Welcome Week Bonfire and Fall General Meeting. We invited all undergraduate and graduate students to stop by to learn more about BMES and our plans for the year. Although we did not have a method to track how many students we were able to talk to, we gained over 150 followers on Instagram, had over 70 students join our Discord, and had over 50 students join our mailing list. We estimate that we talked to over 250 students at this event.

Date	Audience	Attendance	Cost
9/25/23	Undergraduate	250 Undergraduate	\$57.33
10:30 AM - 4:30 PM	Students	Students	

VIII.B. Welcome Week Bonfire

The Welcome Week Bonfire kicked off the Academic Year, creating a lively and hospitable evening. The purpose of this event was to create a social event to begin the new fall term. We promoted a night to

enjoy the sunset, beach, sports, and s'mores. A mix of people enjoyed football, volleyball, and spikeball games. What made this event stand out was how open and welcoming it was. Students from different years and all kinds of majors, not just biomedical engineering (BME), joined in the fun. Whether the students were cheering for their friends or swapping stories by the blazing fire, this bonfire event was the perfect mix of sportsmanship and socializing, leaving everyone with incredible memories of a fantastic night under the night sky. The results surpassed our initial expectations, and we were pleased to see a great turnout.



Date	Audience	Attendance	Cost
9/28/23 5:00 PM - 8:30 PM	Undergraduate Students Graduate Students	48 Undergraduate Students 2 Graduate Students	\$16.13

VIII.C. Art of Engineering

BMES at UCI participated in an Engineering Student Council (ESC) event called Art of Engineering. It was an opportunity for Engineering Student Organizations (ESOs) at UCI to share more about their organization and recruit members from the various engineering disciplines across UCI. The goal of the event was to introduce our organization to a wide audience of engineering undergraduate students about what BMES at UCI has to offer to support them academically and professionally. Students were able to approach our booth and view our trifold. By engaging with us, students were able to obtain a raffle ticket to place into jars to win prizes selected by ESC. We invited students to sign up for our interdisciplinary project program and explained that it provided valuable hands-on technical experience that would be beneficial to all undergraduate engineering students. As a result of boothing at Art of Engineering, we continued to recruit more members, especially mentorship and project members, and offered undergraduate engineering students the opportunity to develop professionally and academically by joining BMES at UCI. Graduate students also approached us to ask about what our events entail and what BMES at UCI has to offer them.

Date	Audience	Attendance	Cost
10/4/23 4:30 PM - 6:00 PM	Undergraduate Students Graduate Students	121 Undergraduate Students	\$0.00

VIII.D. Cross-ESO Bonfire

BMES at UCI joined the Engineering Student Council (ESC) and numerous Engineering Student Organizations (ESOs), including UCI student chapters of the American Society of Mechanical Engineers (ASME), Engineers for a Sustainable World (ESW), Biomedical Engineering Society (BMES), Institute of Electrical and Electronics Engineers (IEEE), Anteater Zotbotics, Anteater Combotics, Society of Hispanic Professional Engineers (SHPE), Phi Sigma Rho (PSR), Anteater Combotics Engineering (ACE), Zotbotics Makerspace (ZBM), and Personal Electric Vehicles (PEVs), in the Cross-Engineering Student Organization (ESO) Bonfire. The bonfire took place at Corona Del Mar Beach and it kicked off the new school year with a night of socializing and fun with students from all engineering disciplines while bonding with new and returning BMES members. The event schedule consisted of providing rides to Corona Del Mar beach, setting up food, drinks, and canopies at a fire pit, having people mingle and settle into the event, starting the bonfire for the event, cooking and eating food, and finally socializing among other ESOs. This event exceeded the expectations of every ESO, with a very high turnout. There were approximately 150 attendees with 25 members being from BMES. Based on last year's experience with supplies, the organizations ensured to purchase enough food and refreshments for all attendees. The event was a tremendous success, with students expanding their network through socializing with other ESOs. The ESOs were able to start the year with a strong relationship with one another and share a strong enthusiasm for the year to come. The bonfires helped board members from different organizations bond and plan new collaborative events for the academic year. We hope to have this event happen at the start of every school year with other ESOs and allow our members to expand their social circles outside of biomedical engineering.



Date	Audience	Attendance	Cost
10/6/23 6:00 PM - 9:00 PM	Undergraduate Students	150 Undergraduate Students (25 BMES Members)	\$0.00

VIII.E. Glow-in-the-Dark Capture the Flag Fundraiser

BMES at UCI joined the Engineering Student Council (ESC) and other Engineering Student Organizations (IEEE, ASME, ESW, and Zotbotics) for a Glow-in-the-Dark Capture the Flag

Fundraiser. Each organization would compete against each other in a game of capture the flag with a little twist. Each participant had to pay a small fee of \$3 and the organization that won was able to take home the pool of funds. Despite a tough loss, our members who participated were able to socialize with other engineering students that they had not met and compete in a friendly competition to potentially win money for their organization. Our Board Members were also able to connect with officers from other organizations and discuss potential collaborations in the near future.

Date	Audience	Attendance	Cost
11/17/23	Undergraduate	30 Undergraduate	\$0.00
5:30 PM - 7:30 PM	Students	Students	

VIII.F. Valorant Social

The Valorant Social was held over Discord, as many members mentioned that they loved to play games on their PCs. The purpose of the event was to allow BMES members to socialize and relax from exams by playing games from the comfort of their own homes. Board members, general members, and alumni came together to create a team and play several games. The competition and teamwork aspect of Valorant helped to build camaraderie amongst the players and brought club members closer together.

Date	Audience	Attendance	Cost
11/18/23 6:00 PM - 7:00 PM	Undergraduate Students	20 Undergraduate students 2 Alumni	\$0.00

VIII.G. Movie Night with SWE & SHPE

Multiple engineering student organizations at UCI—BMES at UCI, SHPE, and SWE—came together to plan a joint movie night for its members. The auditorium was packed with members from the various clubs, with around a total of 90 people occupying the room. The large turnout created a vibrant, lively atmosphere and allowed the different members to socialize with one another before the start of the movie. The movie chosen was The Nightmare Before Christmas, a crowd favorite that kept the audience engrossed for its entirety. SWE also sold concessions such as popcorn, snacks, and drinks to eat while watching. The event ran smoothly, with no technological issues or unexpected problems along the way, and successfully provided a comfortable environment for engineering students from different ESOs to interact.

Date	Audience	Attendance	Cost
11/20/23	Undergraduate	90 Undergraduate	\$0.00

7:00 PM - 8:00 PM	Students	Students	
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VIII.H. Study Hours

BMES at UCI hosted Study Hours to provide a reserved space for students to study for finals in the following week. Students were encouraged to come and study for finals and work together on any projects or last-minute assignments they may have. The event was an hour-long session for students to study individually, in pairs, or in a group, or collaborate on assignments and find potential groupmates for any upcoming class projects while listening to low-fi study music in the background. Many students practiced their group presentations and finalized their end-of-quarter capstone projects for their courses. The event turned out to be very beneficial and offered a low-stress environment for club members to come and study effectively.

Date	Audience	Attendance	Cost
12/6/23	Undergraduate	20 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

Winter Quarter

VIII.I. Roller Skating Social

Following the first BMES General Meeting of the Winter Quarter, both returning and new members of the Biomedical Engineering Society met at the Holiday Skate Center for an exciting roller skating social. The venue, complete with vibrant lights and lively music, provided the perfect backdrop for a fun club outing. Members were able to mingle freely and help each other learn a new skill together. The roller skating social served as a great moment for club bonding, offering members a unique opportunity to connect with their fellow club members. Not only was it fun and provided a good break from schoolwork, but it also served as a way to build relationships and boost the BMES community spirit!

Date	Audience	Attendance	Cost
1/11/24	Undergraduate	33 Undergraduate	\$0.00
8:00 PM - 10:00 PM	Students	Students	



VIII.J. Cookie Decorating Social with ASME

To celebrate the onset of Valentine's Day, BMES hosted a cookie decorating social, in collaboration with the American Society of Mechanical Engineers (ASME). The event featured heart-shaped cookies, colorful frosting options, and multiple sprinkle options. To streamline the decorating process, frosting was prepared and pre-bagged for easy access. Members from both BMES and ASME joined for this event, creating a friendly environment of mingling and new friendships amidst the fun of decorating. There was an impressive turnout; the room was packed with members sharing designs and munching on their creations. This social provided the perfect outlet for club bonding and allowed people from different majors and backgrounds to interact.



Date	Audience	Attendance	Cost
2/8/24	Undergraduate	25 Undergraduate	\$54.39
6:30 PM - 7:30 PM	Students	Students	

VIII.K. E-Week Kickoff Fair

Every year, during Week 8 of the Spring Quarter, the UCI Samueli School of Engineering and Engineering Student Council (ESC) hosts Engineering Week or E-Week to celebrate engineering. BMES at UCI joined ESC along with 12 other ESOs at UCI at the E-Week Kickoff Fair to share details about our organization. It was an opportunity for us to recruit more members, especially students who were not able to participate in BMES in the Fall Quarter. ESOs were also able to connect in person since we approached each other's booths to introduce ourselves. BMES at UCI handed out free stickers to engineering students who stopped by our booth and promoted our upcoming event– the MedTech Pitch Competition. Each student was also able to receive a stamp on their card to receive a free School of Engineering shirt. As a result of boothing at the E-Week Kickoff Fair, we expanded our connections within the School of Engineering and the ESOs and gained a few more participants in our Project Program and the MedTech Pitch Competition.

Date	Audience	Attendance	Cost
2/26/24	Undergraduate	80 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

VIII.L. UCI Homecoming

BMES at UCI supported the Department of Biomedical Engineering in boothing at the annual UCI Homecoming. Despite the rainy weather, hundreds of students, alumni, and families attended the

event. We were able to speak to families about biomedical engineering at UCI as well as share our Jr. BME Outreach Program with families that had children who were interested in biomedical engineering. We stamped cards for attendees who stopped by our table for the attendees to receive a small gift from the School of Engineering. BMES at UCI was able to reconnect with alumni in biomedical engineering and learn about opportunities that we could share with our members. The day was filled with food, treats, performances, and conversations and BMES at UCI was glad to be able to help the Department of Biomedical Engineering. We loved boothing since we were able to spread the word about biomedical engineering, our organization, and engineering in general. Overall, we received many parents and students interested in our Outreach Program and requested to join in the Spring Quarter.

Date	Audience	Attendance	Cost
3/2/24 2:00 PM - 6:00 PM	Undergraduate Students Graduate Students Alumni & Family	100 Undergraduate Students 50 Graduate Students 50 Alumni & Family	\$0.00

VIII.M. ESO Awards Banquet

BMES at UCI was invited to the Engineering Student Council's 51st Annual Engineering and ESO Awards Banquet as nominees and finalists for Best Outreach Program and Best Collaborative Event for our Jr. BME Outreach Program and Cross-ESO Project Symposium, respectively. It was a time for student organizations to celebrate and recognize individuals and organizations that have significantly contributed to the engineering community at UCI. Individual awards consisted of Undergraduate Student of the Year, Graduate Student of the Year, and Professor of the Year for each department in the School of Engineering. Nearly all our Board Members attended the event to celebrate our accomplishments and contributions to the UCI Engineering Community. Our President was a finalist for the Biomedical Engineering (BME) Undergraduate Student of the Year and our Faculty Advisor was a finalist for BME Professor of the Year. The Dean of Engineering presented the awards to individuals and organizations, and soon after, food was served to all attendees. The Awards Banquet was a time for the engineering community to gather in one place and continue the tradition of celebrating all engineering student organizations. The event is to thank ESOs for their service to the UCI engineering community. The BMES Board Members in attendance enjoyed some delicious catering, silly photos, and re-connections with board members in other ESOs. The event was very fun and was a great success. Congratulations to our President who took home the award for BME Undergraduate Student of the Year!



Date	Audience	Attendance	Cost
3/15/24 5:00 PM - 7:30 PM	Undergraduate Students Graduate Students Faculty	60 Undergraduate Students 10 Faculty 10 Graduate Students	\$0.00

Spring Quarter

VIII.N. Bowling Social

Following our Spring General Meeting, BMES hosted a long-awaited and memorable bowling social at Irvine Lanes to kickstart the Spring Quarter, bringing together both longstanding and new members. Organized into groups of six per lane, the setup fostered a lively atmosphere where members could talk and interact. The upbeat music and colorful lighting also created a light-hearted and fun environment. This bowling social not only served as a platform for relaxation and enjoyment but also strengthened the bonds within the BMES community, highlighting the importance of such gatherings—it was the perfect way to roll into the Spring Quarter.



Date	Audience	Attendance	Cost
4/3/24	Undergraduate	27 Undergraduate	\$0.00
8:00 PM - 9:00 PM	Students	Students	

VIII.O. Celebrate UCI

Celebrate UCI is an annual celebratory event hosted by the Office of Admissions at UCI for hundreds of incoming and accepted students to celebrate their admission and learn about opportunities, projects, experiences, and life at UCI. Hundreds of booths are set up for student organizations, departments, schools, and campus resources for students to table and share their purpose and experiences. This year, the Henry Samueli School of Engineering managed all operations, providing our chapter with all equipment needed for tabling, including a canopy, table, chairs, and food! BMES at UCI represented our chapter and the Department of Biomedical Engineering Booth. We attended this event to promote biomedical engineering- what the curriculum has to offer, what the field has to offer, what UCI has to offer, and what BMES at UCI has to offer. Our Board Members shared their experiences in classes, college life, professional development, career growth opportunities, and more with incoming students. We handed out BME-themed stickers, pens, pamphlets, brochures, and BME Day flyers to visitors who stopped by our table. BME Faculty also stopped by to speak with accepted students and address their questions. Celebrate UCI was an opportunity for BMES at UCI to not only promote our organization but also inspire students to join our biomedical engineering community. The intent is to let incoming students know that they will have a support system to fall back on for help with their academics and careers.

Date	Audience	Attendance	Cost
4/20/24 9:00 AM - 2:00 PM	Incoming Students Parents Parents & Families	125 Incoming Students 70 Parents & Families	\$169.90

VIII.P. Ultrasound Workshop

To host events tailored to pre-medical interests, BMES at UCI collaborated with students from the UCI School of Medicine to host an Ultrasound Workshop. The event began with the medical students speaking to our members about a study they were conducting, after noting study participants, the students then began with the Ultrasound portion of the workshop. Using a portable ultrasound, the UCI Medical Students conducted ultrasounds on volunteers. The workshop allowed students to learn more about the uses of ultrasounds and how to read them. Students were encouraged to ask questions and many gained insight into how ultrasounds are used in patient care. Students who attended were

able to view ultrasounds of hearts and lungs as well as a uterus. Overall, the event was appreciated by our members and is something BMES at UCI will likely repeat in the future.



Date	Audience	Estimated Attendance	Estimated Cost
5/1/24	Undergraduate	20 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

VIII.Q. Mask Decorating Social

With the Annual BMES Ball quickly approaching, BMES is hosting an arts and crafts social to help guests prepare for this year's theme: masquerade party. Masquerade masks are a trademark accessory for this theme, so this social event is dedicated to allowing attendees to decorate their masks to wear to the BMES Ball. There are different blank masquerade mask styles to choose from, and each member receives one to customize. A spread of colorful paints, beads, and gemstones will be provided to decorate and personalize the masks. This is a great chance for members to express their creativity and prepare for the banquet while socializing with other BMES members.

Date	Audience	Estimated Attendance	Estimated Cost
5/15/24	Undergraduate	40 Undergraduate	\$87.00
6:30 PM - 7:30 PM	Students	Students	

VIII.R. BMES Ball

The BMES Ball will occur on May 23, 2024, from 6 to 9 PM. This event is a formal, celebratory event honoring the academic and organizational achievements within BMES over this past year. The current theme is a masquerade featuring decorations that encompass the theme. There will be awards throughout the event, including Board Member of the Year, General Member of the Year, and

Mentorship Group of the Year. We will be raffling off several items including a pair of Airpods, a Nintendo Switch, and a Sony speaker. With a night full of dancing, games, photos, and food, the goal is to highlight BMES members for their exceptional dedication and impact within BMES!

IX. Inter-Chapter Activities

Cross-chapter collaborations are essential in building good relationships with other BMES chapters from around the country. BMES at UCI emphasized events centered around socializing with members from other chapters. Setting up fun events such as Cross Chapter Trivia allowed our members to meet other like-minded students and network with those who are interested in similar career paths. BMES activities as well as the BME curriculum look different at every school, thus, forging relationships with other chapters has been especially rewarding. Not only can we share what we do, but more importantly we can learn from each other. One event where this was especially emphasized was BMES Around the World, which was a Zoom event hosted by the BMES Chapter at Tecnologico de Monterrey. During this meeting, we heard from chapters from around the continent and got great insight into how they run their chapters and took inspiration from their event ideas. BMES at UCI recognizes that these collaborations have grown over the past few years and intends to continue this growth in the future.

Date	Event
10/21/23	BMES Around the World!
11/27/23	Cross-Chapter Trivia Night
4/17/24	Cross-Chapter Trivia Night: Pt. 2

Table 9: List of Inter-Chapter Activities.

IX.A. BMES Around the World

BMES Around the World was an interchapter collaboration event that took place on Zoom and was organized by the BMES Chapter at Tecnologico de Monterrey. The chapters attending included UCI, FIU, Florida State University, Tecnologico de Monterrey, University of Florida, University of Central Florida, and University of South Florida. This event was tailored to fostering a relationship between different BMES chapters around North America. The event began with guest speaker Dr. Marcus Moya Bencomo, a BME alumni of Tec de Monterrey, who gave a brief presentation of his work in the medical field. This served to offer insight into potential topics of interest in the field of biomedical engineering. Following the presentation, Tecnologico de Monterrey hosted a Kahoot trivia to test our biomedical engineering and medical knowledge. BMES at UCI took the win in the trivia! Afterward, each university was able to share a slide presentation about their chapter and biomedical engineering at their respective universities. This allows members to learn about research areas and specialties at each university, which may help students interested in pursuing graduate studies. Overall, the event allowed each chapter to learn more about research and courses at different BMES chapters and varying

universities. The Q&A portion of the event at the very end also served the goal of fostering relationships. Collaborations such as this are essential in the growth of individual chapters, as they provide a platform for discussion and learning.

Date	Audience	Attendance	Cost
10/21/23	Undergraduate	30 Undergraduate	\$0.00
1:00 PM - 4:00 PM	Students	Students	

IX.B. Cross-Chapter Trivia Night

BMES at UCI joined the BMES Chapters at Ohio State University, Colorado State University, University of Southern California (USC), and Arizona State University (ASU) for a Trivia Night collaboration. The objective of the event was to create a light, social environment for members of each chapter to get to know other students and have a friendly trivia competition. To start, OSU provided a brief overview of the night before splitting up attendees into breakout rooms. Students were given some icebreaker questions to get to know each other and exchange contact information for future collaborations. The smaller groups allowed for more personal conversations and were successful in providing a no-stress atmosphere for members from differing chapters to converse. The second half of the event was an online trivia competition. Attendees were asked to join an online quiz and participate in answering 30 questions. The categories of trivia questions ranged from general to BME-specific questions. The competition was close and BMES at UCI was proud to take home first and second place! The first-place winner received an Amazon gift card. Overall, the event was enjoyable and was a great way for students to socialize with people of similar passions and interests. In the future, such an event is sure to be repeated.

Date	Audience	Attendance	Cost
11/27/23 6:30 PM - 7:30 PM	Undergraduate Students (UCI, USC, CSU, ASU, OSU)	20 Undergraduate Students	\$0.00

IX.C. Cross-Chapter Trivia Night: Part 2

BMES at UCI joined the BMES Chapters at Ohio State University, Rochester Institute of Technology (RIT), Tecnologico de Monterrey, and University of Massachusetts, Amherst for a Spring Quarter Trivia Night collaboration. The event was intended to create a fun and stress-free environment for members of each chapter to meet students from chapters across the U.S. and compete in trivia for an Amazon gift card. OSU provided a brief overview of the event before breaking attendees into Zoom breakout rooms for introductions. Students were provided with icebreaker questions to reduce awkward silences and start conversations. The personal conversations were enjoyable and provided a welcoming and no-stress environment for members. It was a good combination of board members and general members in each breakout room. The second half of the event was an online trivia competition where attendees joined an online quiz and participated in answering 28 questions. The categories of trivia questions were mainly BME-specific questions but included a few tricky trivia questions as well. The results were close, but RIT took first place while BMES at UCI placed fifth. All in all, trivia was enjoyable and we hope to continue this tradition with other BMES chapters around the country!

Date	Audience	Attendance	Cost
4/17/24 4:30 PM - 5:30 PM	Undergraduate Students (UCI, OSU, UMass, ITESM)	29 Undergraduate Students	\$0.00

X. Outreach Activities

Outreach at BMES at UCI has seen great growth this year. The Jr. BME Outreach Program spanned the academic year and exposed high school students to BME and engineering. Program workshops were held on Sundays and culminated in a pitch competition where students collaborated to ideate a medical device. Workshops were devoted to various activities, from technical skills to pitching ideas. The largest event for BMES at UCI Outreach was BME Day, an opportunity for newly admitted and high school students to come to campus and learn more about the BME program at UCI. BME Day welcomed 200+ students and their parents and offered various panels, activities, and lab tours, all to let students gain exposure to BME and what BME offers as a major and a career. Outreach also organizes fundraisers at certain food establishments. This year, members were able to enjoy boba and pizza while also contributing to BMES at UCI. To expand the reach of our programs, this year, BMES at UCI visited neighboring high schools to speak about BME, Jr. BME, and college. Participation and retention were at an all-time high for Outreach, and we hope to see this trend continue!

Date	Event/Activity
10/22/23	Jr. BME Workshop: Welcome Meeting
11/1/23	Portola High School Visit: Introduction
11/5/23	Jr. BME Workshop: Java Programming
11/13 - 12/8/23	Holiday Canned Food Drive
11/19/23	Jr. BME Workshop: Arduino 101
11/26/23	Jr. BME Workshop: Onshape
11/29/23	Portola High School Visit: Industry
1/11/24	Woodbridge High School Visit
1/27/24	MedVeda Hack-A-Thon
1/28/24	Jr. BME: Transfers & Alumni Talk
2/11/24	Jr. BME: You Light Up My Heart! (Arduino Workshop)
2/25/24	Ir. BME: Premedical Track Panel

Table 10: List of Outreach Activities.

3/3/24	Jr. BME: CADuino Workshop
4/7/24	Jr. BME: Pitch Workshop
4/14/24	Jr. BME: Entrepreneurship Workshop
4/21/24	BME Day
4/28/24	Jr. BME: Project Presentations
5/4/24	Charity Field Day
5/19/24*	Jr. BME: Mini-Banquet
5/25/24*	IGNITE

* Future Events

X.A. Jr. BME Workshop: Welcome Meeting

As we jump-started our Jr. BME Outreach Program for the 2023-2024 school year, we hosted our first Fall Quarter Jr. BME workshop. This workshop was created to introduce high school students to the field and UCI. For this workshop, we had 77 students come out, which was an amazing improvement from the 20-30 students we had last year! Although some of our students returned for the workshops, we thought this would be a great way to introduce what we do and what resources we can provide for students! We wanted to keep this presentation short as students or parents might have had questions about the program. We briefly introduced what BME is, what BMES at UCI is, and what opportunities they have during and after their undergraduate studies. We took questions for the rest of the first half of the meeting. Many students did not have questions they wanted to ask in front of everyone else, so we extended the break by 10 minutes to allow for personal questions. Some students approached volunteers with questions regarding BME, technical skills, and careers. We reconvened to answer some frequently asked questions to make sure students had a better idea of all the information we gave them about the biomedical engineering field. Following the session, we led a campus tour. A campus tour was highly requested by previous students, so we decided to integrate it into our introductory meeting. We split them into groups of about 35 to 40 students each and had six volunteers go along with each group. We had to ensure students stayed together to prevent them from getting lost, so we took many breaks along the way. Overall, this event was a huge success, and we were ready to prepare workshops with these students for the rest of the year.



Date	Audience	Attendance	Cost
10/22/23 2:00 PM - 4:00 PM	High School Students	77 High School Students	\$28.04

X.B. Portola High School Visit: Introduction

One of the main goals for BMES at UCI this year is to visit high schools during their lunch breaks and support local students in any way we can. We want to support our community in sharing educational and career advice and potential opportunities for students to prepare them for higher education and their lives as adults. A local school, Portola High School, contacted us indicating that they have created a BMES chapter and would like further support from us. We planned to host small monthly lunch meetings. The lunch for high school students is a short 30 minutes, so this provided a challenge as to what we can talk about in a short amount of time. In the first meeting, we planned to introduce the biomedical engineering major, our organization, and the medical device and biotechnology field. The students in the BMES chapter of Portola High School joined with an interest in biomedical engineering, and we wanted to further build this interest. We needed to make sure our presentation was different from our initial Jr. BME meetings because a few students from Portola High School joined us at this workshop. We also shortened our presentation so that we had time for questions. We did get a lot of questions from students! We had seven volunteers from our chapter, and 35 students from Portola High School joined us for our first-ever BMES-solo high school visit!

Date	Audience	Attendance	Cost
11/1/23 12:15 PM - 12:45 PM	High School Students	35 High School Students	\$0.00

X.C. Jr. BME Workshop: Java Programming

As the second Jr. BME workshop of this Fall Quarter, we hosted a Java programming workshop to teach the students about Java as the kickstart to our technical workshops. 89 high school students attended this workshop, which was even more than the attendance for the introductory workshop. Since this was a technical workshop, the students were quite prepared, with most of them bringing computers to run the online IDE and those who didn't paired up with someone who brought a laptop. We started with a very quick introduction and preamble of why the programming workshop focused on Java. Once that was covered, we went right into Java syntax and basic programming (printing, variables, math library). The first half did run a bit long, so some topics did get pushed back (scanners). After the break, we covered the topics that got skipped during the first half, then went into working with strings and logic gates. At this point, we strayed from the slides and went into live demonstrations on screen, which the students seemed receptive to and more engaged as the coding was done live with them. We wrapped up with a final exercise, with not enough time to cover methods and the last challenge. However, we told the students that the slides would be posted on our Jr. BME website and that they could look over the section about methods and do the challenge themselves at home. We gave a few announcements, reminded them about the Arduino workshop next session, and dismissed them to go home. Overall, the workshop went very smoothly, with the students being able to follow along with the presentation, and those who needed more help were attended to by one of the board members or a volunteer from the outreach committee.



Date	Audience	Attendance	Cost
11/5/23 2:00 PM - 4:00 PM	High School Students	89 High School Students	\$0.00

X.D. Holiday Canned Food Drive

For families in need during the upcoming holiday season, BMES at UCI Outreach decided to host a Canned Food Drive. There were two drop-off locations, with one being designated for faculty and another for students in the BME department. We especially wanted to incentivize our student population to donate, so we partnered with our club's mentorship team to award points to the mentorship groups that donated cans. The main reason for this event was to begin expanding Outreach by giving back to the community, especially during this time of year when it is needed the most. Collection tended to fluctuate, with some days seeing a lot of donations and others seeing none. Over a few weeks, a total of 146 cans were collected and donated to a non-profit organization called Families Forward, located in Irvine. This organization was selected as it allowed drop-offs from organizations rather than just individuals, and the location was relatively close to campus. The original dates were extended due to the busy academic environment around finals so that students and faculty would have as much time as possible to donate. Overall, the food drive was very successful in helping BME students and faculty contribute to a good cause as well as facilitating mentorship groups to get closer by working towards a common goal.

Date	Audience	Attendance	Cost
11/13 - 12/8/23	UCI Students	N/A	N/A

X.E. Jr. BME Workshop: Arduino 101

Our third Fall quarter Jr. BME workshop was an Arduino-based workshop, with an attendance of 67 students. The main focus of this quarter was to introduce the technical skills that engineers frequently use to our students. After our programming workshop, our next step was to introduce them to circuitry and Arduino. Last year, our Arduino workshops piqued the interest of our students, so we wanted to bring it back. Since all of our fall workshops are at an introductory level, we started from the very beginning and taught students how to build a simple circuit and light up an LED. Learning circuitry is a very important skill to learn early on, as it is an integral part of an engineer's skill set. We wanted this workshop to provide an opportunity for our new students to learn this skill from the ground up while also allowing students with previous Arduino experience to complete harder tasks. Students were given free time to try and figure out the circuit, after which the solution for the circuit and code were shown. After the first half of the workshop, students worked in groups to figure out the challenge prompt, which was to create an LED stop light. Volunteers assisted with circuitry and code when students encountered difficulties. Students with more experience were able to advance to the extra challenge, which involved changing the brightness of the LEDs. This involved more

understanding of the coding aspect of Arduino, so students were encouraged to research Arduino syntax online. Overall, this workshop went well considering most of the students were at an introductory level. In the future, we may consider splitting Arduino workshops based on skill level so that students who need more guidance can receive it and students who want more of a challenge can do so as well. Students were well-engaged in their groups and the activity.



Date	Audience	Attendance	Cost
11/19/23 2:00 PM - 4:00 PM	High School Students	67 High School Students	\$0.00

X.F. Jr. BME Workshop: Onshape

The fourth and final Jr. BME meeting of the fall quarter was an ONSHAPE workshop. The purpose of this workshop was to teach students about computer-aided design (CAD). We decided to use ONSHAPE as opposed to SolidWorks and Fusion 360 as it is free and can be used on a browser. This was important to consider because not every student has access to a Windows or Mac computer, so

some students will be using their school Chromebooks, which do not support software such as SolidWorks and Fusion360. When preparing for this workshop, we wanted to account for all levels of CAD knowledge, so we decided to create beginner and intermediate tutorials with an advanced challenge. The plan for the workshop was to teach CAD skills that are essential for building a project design. Any other advanced skills could be built on top of these basic and intermediate ones. During the workshop, we had about 50 students show up, and considering it was during the Thanksgiving weekend, this was a very high turnout. In the same way, it was hard to manage all the students and their questions with a lower number of volunteers, but we were able to answer everyone's questions. The beginner and intermediate activities did take longer than expected, but we were able to finish the activities with enough time for students to build things on their own or attempt the advanced challenge. In the future, something we would consider is what consists of a beginner-level activity versus an intermediate one. Although the skills used in the beginner activity were simpler, there were too many compounded into one activity that it was more difficult than the intermediate activity. Overall, this workshop was successful, and it will help our students when developing their project over the next set of workshops.

Date	Audience	Attendance	Cost
11/26/23 2:00 PM - 4:00 PM	High School Students	52 High School Students	\$0.00

X.G. Portola High School Visit: Industry Guest Speakers

The first visit to Portola incited a lot of interest in the biomedical engineering field. We wanted to dive deeper into the field and introduce the students to UCI alumni who are currently working in the industry. One of the speakers is experienced with start-ups and working in the industry, and both of them have worked in research labs. They are very experienced and were great when answering students' questions. During this visit, we had two volunteers along with the two alumni speakers. The alumni speakers presented briefly about their background and their journey to where they are today in their careers, as well as some advice to students about the transition from high school to college to industry. The students asked numerous questions regarding details of their career journey to their undergraduate preparation for industry. There was great interaction between our alumni speakers and the students. Overall, the students expressed interest and preference for interactive meetings, so we plan on inviting more speakers or doing a short hands-on workshop, which might be difficult since it is during their lunchtime. We hope to continue this partnership with Portola throughout the entirety of the academic year.

Date	Audience	Attendance	Cost
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11/29/23	High School Students	30 High School	\$0.00
12:15 PM - 12:45 PM		Students	

Winter Quarter

X.H. Woodbridge High School Visit

On behalf of Woodbridge High School (a high school in Irvine), the robotics team FTC 9040 STEAMpunks Alpha wanted to do a collaboration workshop with BMES to promote biomedical engineering to high school students to inform them about the field as they went about their college applications. We were requested to give a presentation about BME to students who came out to the workshop. Since it was in the middle of the day, only two board members were able to attend, but that was quite a satisfactory number since the high school faculty did not need to have too many people on campus. It was held in one of the science teacher's classrooms during the lunch period and students trickled in to listen once they got their food. The turnout was small, about 10-12 students who were mostly part of the robotics team. However, they were an attentive audience who showed great interest in the field. Not too many questions were asked, but we were able to soundly respond to those who did.

Date	Audience	Attendance	Cost
1/11/24 11:35 PM - 12:10 PM	High School Students	12 High School Students	\$0.00

X.I. MedVeda Hack-A-Thon

Med Veda, a high school student organization based in Irvine, hosted a hackathon as a part of their mission to increase student access to the healthcare field and innovation. As a part of their hackathon for innovation, they requested us to booth! They invited us to come out to talk about what we do as a student organization at UC Irvine and what we have to offer for younger students. Their event took place at a local community center in the middle of Irvine. Once we got there, the event was much smaller than expected, with only a few students showing up. This meant that only a few students came up and talked to us about UCI, BMES at UCI, and the pathway to becoming a biomedical engineer. However, with the few students we did talk to, we were able to provide them with support, advice, and information about our programs for high school students who are interested in the biomedical field. Overall, although the turnout was small, we were glad to support a local event held by students, and we are maintaining a connection with them to continue conducting high school outreach events with the Irvine community and beyond.

Date	Audience	Attendance	Cost
1/27/24 12:00 PM - 2:00 PM	High School Students	20 High School Students	\$0.00

X.J. Jr. BME: Transfers & Alumni Talk

The Jr. BME Program resumed in January for the Winter session of workshops. During this session, we wanted to focus on providing students with advice and time to work on their projects. We wanted to provide this advice through the use of professional panels. The first panel we planned for our high school students was a Transfer and Alumni Panel. We had two alumni from the biomedical engineering industry come to share what they do and what their experience as a traditional 4-year university student was. We had one alumnus and one current student talk about their experiences as a transfer student. We wanted to allow students to ask all their questions about the different pathways to college and what they entail. When planning this event, we wanted to have panelists of various backgrounds, so in this way, we might have a lot more aspects our students can relate to. During the event, the panel discussion started a bit slower. We had prepared a list of questions in advance, and once we started off with these questions, students found some of their own to ask. Students asked a lot of great questions and asked panelists about the specifics of their high school trajectories to plan out their own. Even during the break time, students were extremely proactive in asking personal questions, and they seemed to take advantage of this opportunity as we had hoped. At the end of the workshop, we introduced our Group Projects. This opportunity is completely new, and we are implementing it for our students to take charge of their projects and ideas to show us what they come up with and how they can apply the engineering skills they have learned at our workshops to solve an issue! Many students formed groups right away and started ideating and creating their project proposals. This seemed like a great start to our long-term group project activity!

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Date	Audience	Attendance	Cost
1/28/24 2:00 PM - 4:00 PM	High School Students	85 High School Students	\$76.00

X.K. Jr. BME: You Light Up My Heart! (Arduino Workshop)

For the Winter quarter Arduino workshop, we wanted to improve from last quarter by taking suggestions from a feedback form given to students. To improve the pacing of the activities, we spent minimal time instructing students using slides, and more time was instead allotted towards figuring out how to follow instructions as well as think beyond them. The instructions were given to them in a document format, separated into a beginner and advanced track. The beginner track was straightforward and able to be followed step by step with specific instructions for setting up the circuits and Arduino with their computers. It started with the same goal as the previous workshop - light up an LED and make it blink. Then, make it blink at the same rate as a heartbeat, measured by gathering a radial pulse from someone else in their group. The advanced track assumed a baseline level of knowledge of the software and hardware and encouraged the use of the online Arduino documentation to figure out how to make the circuit behave as the instructions specify using code. A pulse sensor was used to measure a group member's heart rate and then checked for accuracy by graphing the input and identifying the PQRST waves. After this was completed, they had to wire an LED that would blink synchronously with the student's heartbeat. Students were encouraged to complete both tracks, starting wherever they felt most comfortable. They were in groups of 4-5 people, with one kit assigned to each group. To prevent loss of newly supplied hardware, we created a sign-in

and sign-out system with each group being assigned a number along with their given materials. This system was effective and allowed us to be more organized with a turnout of over 70 students. Volunteers met with the coordinators a few days before the workshop to ensure their knowledge of the circuitry. Students engaged with their group members and actively asked volunteers when they needed help.





Date	Audience	Attendance	Cost
2/11/24	High School Students	72 High School	\$1149.77

2:00 PM - 4:00 PM		Students	
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X.L. Jr. BME: Premedical Track Panel

The third Jr. BME workshop of the Winter Session was a combination of a premedical panel and project work time. We split this workshop into two because we wanted to allow students to work on their projects and ask questions about the medical school pathway. We reached out to two current medical students, one first-year and one fourth-year student, to talk about their experiences in medical school, how they got there, and what advice they could provide. We also reached out to two current premedical students, who are also biomedical engineering students at UC Irvine, to talk about their experiences from high school to what they are currently doing in their undergraduate studies. Unfortunately, every workshop comes with its complications, and one of our undergraduate panelists had to drop out at the last minute, but we were able to have one of our board members step in and be a part of the panel! During the event, students were very slow at asking questions, but we were able to start the conversation with some premade questions. After 20 minutes or so, students started asking their questions. Halfway through the workshop, we ended the panel and took a break. Even during the break, students came up to the panelists to keep asking personal questions. Panel members were willing to stay after the break to answer even more questions, which was amazing! Then, it was time for them to work on their projects. During this time they worked on their proposals or started prototyping their ideas through Onshape or Tinkercad. Additionally, students' proposals were reviewed and they could ask questions about the feasibility of their ideas and any issues that would arise with the idea. This review took a bit longer than expected, so we would have more coordinators going around to review these proposals. However, our retention was much better this quarter, and we hope to keep it the same!

Date	Audience	Attendance	Cost
2/25/24 2:00 PM - 4:00 PM	High School Students	68 High School Students	\$316.06

X.M. Jr. BME: CADuino

The Jr. BME Program resumed in January for the Winter session of workshops. This workshop was intended to hone students' skills in CAD and circuit building. 59 high school students attended the workshop. Continuing from the Onshape workshop in the fall quarter, more advanced 3D modeling skills were covered, from loft to fillet to external planes. We sent out emails before the workshop for the students to bring their laptops with them so they could CAD; more brought their devices than in the previous Onshape workshop, but some still did not bring any. The project of interest was to create a

model of a bean alongside the live demo. It was designed to be a shorter lecture (given that students already have some CAD experience) and the extra time before the break was used to showcase how to use TinkerCAD to model circuits. After the break, the workshop became an open Q&A for CAD. Not that many students asked questions, but those who did had it demonstrated live. After the Q&A, some more details were covered for the group projects and any questions about the project proposals were asked. Overall, the workshop went pretty smoothly and more students were able to complete the tasks independently and follow along with the lecture/demo.



Date	Audience	Attendance	Cost
3/3/24 2:00 PM - 4:00 PM	High School Students	58 High School Students	\$76.00

Spring Quarter

X.N. Jr. BME: Pitch Workshop

This workshop was the first one of the spring quarter. Since the spring session was tailored in anticipation of the group presentations on the third workshop, the topics would be dedicated to helping students prepare for that event. The style of the presentations was to pitch for a medical device that the groups created using skills acquired from previous Jr. BME shops, so this workshop was made to be a pitch workshop. Only 22 students showed up, which was an oversight given that most high school students at the time were currently on their spring break and most likely out of town or doing other activities. However, to the students that did show up, one of the Outreach coordinators had a presentation about pitching. In the talk, the essentials of giving a successful pitch were covered, as well as extra details specific to pitching a biomedical device, such as FDA regulation. Additionally, market analysis and business models were discussed to introduce the aspect of entrepreneurship to the Students in the context of marketing a MedTech device for profit. Afterwards, a few members of the BMES board gave a demo pitch of a theoretical EEG to show the students how an actual device pitch

would be done. With those newfound skills, the students were asked to try and come up with a pitch for a heart valve and try their hand at presenting it. Once the pitch workshop wrapped up, it was free time for the students to continue working on their group projects. Students were collaborating with their group mates or asking questions about how to improve their project. Overall, even though there was a low turnout, a lot of content was covered and the students engaged in active participation with the practice pitch activity. Also, with the extra time at the end, those participating in the group project hopefully were able to use it productively to advance in their development and presentations for their chosen medical device.

Date	Audience	Attendance	Cost
4/7/24 2:00 PM - 4:00 PM	High School Students	22 High School Students	\$76.00

X.O. Jr. BME: Entrepreneurship Workshop

During the second workshop of the Spring quarter, we invited an industry professional working at NASA to teach our students about the entrepreneurial aspect to BME. We acquired this contact by reaching out to our Vice President's older sister. She has experience working in the entrepreneurial field in BME, so we thought she would be a great resource for our students to learn from. She gave a presentation discussing her experience and her journey to where she is, which included great tips on entrepreneurial skills and how to go about pursuing a pitch for a new idea. She frequently interacted with the students, and even paused to allow time for a mental exercise where students had to discuss how they would come up with a more efficient storm drain. After this exercise, she revealed that this was a more realistic scenario than students thought, and one of her colleagues was currently investigating a solution to this problem. Throughout and after her presentation, students asked her questions and seemed well-engaged in the talk overall. Students seemed to really enjoy the speaker session! After a short break, we ended the Entrepreneurship panel portion of the workshop and students were allowed to work on their group projects that would be due a few weeks later. As students met up in their groups, Arduino supplies were provided to them and volunteers walked around to answer questions as well as assist with technical skills.

Date	Audience	Attendance	Cost
4/14/24 2:00 PM - 4:00 PM	High School Students	42 High School Students	\$76.00

X.P. BME Day

Our first-ever BME Day was a huge success last year. This year, we wanted to take the feedback we received from our student and parent attendees from last year to make the event bigger and better this year. We wanted to continue the trend of inviting all the admitted UCI BME and BME Premed students to BME Day in addition to our Jr. BME families. We wanted to keep giving future students and their families an insight into the biomedical engineering field, the program here at UCI, and what college life would be like. Throughout this event, we hosted lab tours, a poster session, professional panels (pertaining to the field from alumni in various careers, current students in research labs, representatives from UCI Admissions and the Undergraduate Research Opportunities Program (UROP) at UCI, professors, and our board members), hands-on activities (Arduino, Computer-Aided Design, and a prosthetic arts and crafts activity). The overall goal of this event was to educate younger students and their families about the biomedical engineering experience and an opportunity to expand their network and broaden the scope of their career search.

In the few months leading up to BME Day, we ensured to plan every single detail. We started to plan this earlier than the past year, such as addressing the liability waivers and reaching out to panelists. The first step was to finalize the venue and the itinerary for the event. We decided to keep all the activities in the Interdisciplinary Science and Engineering Building (ISEB) for the safety of our Board Members and our attendees. Based on the feedback from previous attendees and the way that the event was conducted last year, we adjusted the itinerary to extend the professor panel and include an undergraduate research panel. We also reached out to more professors and labs who conduct their research labs in ISEB to keep everything in one building in addition to the added security in these labs with a glass door separation. Additionally, we wanted to keep the event the day after Celebrate UCI, also known as Admitted Students Day at UCI, which allowed us to reach students who were in town for the event and wanted to learn more about the BME program at UCI. Once these details were finalized, we reached out to the Student Outreach and Retention Center to craft a risk and liability waiver as we are hosting minors at BME Day. We started this process much more in advance than last year as we had planned, but it still took a long time, and we only received this waiver a week before the event. This caused issues with advertising the event as we only had a week to advertise the event to our Jr. BME families and all the families with students admitted to the UCI BME programs. We reached out as soon as we could to UCI Engineering to publicize the event to all the admitted students at UCI BME, and we personally reached out to all our families and schools who we are in contact with. In the end, we had around 200 attendees at the event, but we believe that if we advertise the event earlier next year, we will be able to increase our attendees so that they would be able to plan their trip in advance.

From previous feedback, we knew that our students, who committed after BME Day, enjoyed the activities, professional panels (Professor Panel specifically), and lab tours. In regards to the activities, we had more of a turnout in these activities than we did last year. However, they still went pretty smoothly when students were paired up to work on the activities together with the limited supplies we had. All the activities were intended to improve the student's technical skills or introduce them to the skills we learn as undergraduate students at UCI.

In addition to the activities, we knew that the lab tours would be in high demand as they are not as accessible for students who are minors. We managed to contact graduate students in Dr. Pim Oomen's lab to conduct lab tours of the Cardiovascular Innovation and Research Center (CIRC), and Dr. Fangyuan Ding's lab, which is based on genetic engineering. Some students were able to see researchers in action which would have been a very interesting experience for them. In addition, the attendees were spread out across the event very nicely so that there was no rush to conduct the lab tours. In the future, we plan to time the lab tours at certain intervals so that there is consistency in the number of students at the tour. We did have issues with the lab tour organization in the beginning, but it was quickly resolved by our floater volunteers.

We planned the panels with professionals and students in the biomedical engineering field in the hopes that incoming students and parents would be able to get all their questions answered. However, we wanted to separate the panels by topic so that all the questions could be answered throughout the day. The panels were split up by the hour, and two of them were hosted simultaneously. As opposed to our initial thoughts, the BME Career Panel and the Undergraduate Research Panel had a very high attendance rate in comparison to the other panels occurring at the time, so we definitely want to keep these panels for future BME Days. Other than a starting question for the panels, the attendees had a lot of questions and filled the whole time with their questions and the panelists' responses. The panel sessions were very lively, and we diversified our panelist selection from our Board Members to people all over UCI. We invited a UCI Admissions officer, a student ambassador from UROP, and students from all over campus to introduce what they do and their experiences at UCI. Specifically for the professor panel, we were able to invite 5 professors from the BME Department at UCI (Dr. Zoran Nenadic, Dr. Elliot Hui, Dr. Elliot Botvinick, Dr. Naomi Chesler, and Dr. Pim Oomen) who had diverse experiences across their time before and at UCI. The panel was extended to two hours, which allowed for a great amount of discussion and a perfect ending to the panel. We are considering rearranging the panels to make sure that the most popular panels are not overlapping and that the activities are split up even further to allow for students to go to other panels.

The biggest change we made to BME Day this year was that we opened up a volunteer form to our General Members who wanted to get more involved with the outreach endeavors that we host at BMES at UCI. This was the best decision we had made as all our Board Members were not running all over the place and could have more flexibility as to when they could help out without straining the volunteers already there. They were so enthusiastic that it raised the amount of energy that all of us had! The volunteers did an excellent job at helping us out at BME Day, and we are so grateful for all the Members who came and supported us.

Overall, we received a lot of positive feedback after the event! A lot of the parents came up to our Board Members to tell us how well the event went and how they would like to see more of these events. This makes us even more excited to plan BME Day once again in the next school year! However, we will take into consideration getting volunteers out to help earlier, advertising and sending out follow-up emails a few more days in advance, and recruiting Board Members to host the panels so the Outreach Coordinators can manage the event from the outside as floaters.





X.Q. Jr. BME: Project Presentations

After spending a couple of months working on their group projects, the students attending Jr. BME were finally able to present their medical devices. Throughout the workshops, students developed skills in Arduino, Onshape, and programming to culminate in a final group project where they would pitch a novel device to solve a medical issue. This presentation was representative of their collective work in the biomedical engineering disciplines and collaborative research with their peers. The presentation day itself had a turnout of 31 students, less than the previous attendance, but more than the first workshop of the spring quarter. Most students who attended had presentations prepared. 12 groups were slated to participate, however, only 4 groups had their teammates show up and were ready to present. Each group had 7-9 minutes to pitch their devices, then were given a short Q&A session. The judging panel consisted of four BMES board members unaffiliated with Outreach to provide an unbiased judging experience for the students. One of our Outreach Coordinators created a rubric for the judges to grade the students with, and points were awarded to each group based on their presentation. Groups pitched a variety of devices, from eye-text-speech software to near-infrared allergy detection to eye health monitoring glasses to preventative anxiety attack jewelry. Cafe Orange, the group that worked on eye-text-speech software, won first place and was awarded custom Jr. BME trophies. Overall, even with the sudden lack of groups on the day of, the event still went very smoothly and adapted well to the situation at hand, while also showcasing the great work of the students in their group projects.

Date	Audience	Attendance	Cost
4/28/24 2:00 PM - 4:00 PM	High School Students	31 High School Students	\$76.00

X.R. Charity Field Day

Every year, we want to host at least one fundraiser for charity. Last year, we hosted our first Charity Field Day! We wanted to have a casual setting for undergraduate students to get to know and network with graduate students and faculty in the Biomedical Engineering Department at UCI. This event was a huge success last year, and our faculty were more than happy to support our event this year. This year, we had undergraduate students and graduate students/faculty get into teams and play volleyball, basketball, and soccer. As the event is for charity, we charged a participation fee for each of the attendees, which was \$3 for undergraduate students, \$5 for graduate students, and \$10 for faculty. To provide enough space for the sports, and to provide a location suitable enough for all parties to attend, the fundraiser was hosted at Gabrielino Park, a park located near the UCI campus. The plan for this event was to run for 3 hours, with an hour available for each sport. We had a high number of attendees at this event to promote a closer relationship between the students and faculty and a great number of donations to the Meals on Wheels charity, an organization dedicated to helping senior citizens with their meals and any other support they would need. In the end, we did not end up playing soccer, but we did enjoy time after volleyball and basketball to relax and eat lunch. We all had a great time, and the undergraduates ended up winning basketball! We also ended up making \$179 for the Meals on Wheels charity, which was amazing to see! We hope to continue putting on charity events next year to promote support for the community around UCI.



Date	Audience	Attendance	Cost
5/4/24 11:00 AM - 2:00 PM	Undergraduate Students Graduate Students Alumni Faculty	16 Undergraduate Students 3 Faculty	\$21.44 Funds Raised: \$179.00

X.S. Jr. BME: Mini-Banquet

To conclude this year's Jr. BME program, we plan to host one final event. It will be different from our usual, highly structured workshops - where students have learned various technical skills such as Arduino, ONSHAPE, and programming as well as entrepreneurship and pitching. At this event, the structure will be more laid back. First, any groups that were not able to attend the previous Project Presentations will still have the opportunity to present and show off their hard work - however, they won't be considered to be part of the competition for fan favorite which was completed on the Presentation day. The judges from Presentations will still score these projects and provide feedback for the students to improve in future endeavors. After these are completed, there will be a brief recap of everything the students have learned over the school year. This is to highlight their achievement in learning these skills early, especially while balancing their own classes, as well as to open up a conversation about feedback for next year. This will be done with a non-anonymous Google form that students can optionally complete.
Next, a Q&A session will begin for the high school students to address any questions or concerns they may have garnered throughout this year's Outreach events. The first half will be in a panel format, where questions can be addressed in a group setting by the Outreach Coordinators and any attending Board Members. After a break to get some chips and water, the Q&A floor will open for students to ask individual questions about the BME program at UCI and college in general. Finally, in the last thirty minutes, we want to highlight each student individually by awarding Jr. BME attendance certificates. These will be awarded to students that attended at least 6 Jr. BME workshops this year, which is 50% of all of our workshops. Slides will also be created for each student, including a few slides at the end to highlight the best moments in the program this year. We think this event will be a great way to conclude Jr. BME for the 2023-2024 school year, as well as encourage students to return as our events change every year depending on feedback from the students themselves as well as from our Outreach Coordinators and Board Members.

Date	Audience	Estimated Attendance	Estimated Cost
5/19/24 2:00 PM - 4:00 PM	High School Students	50 High School Students	\$76.00

X.T. IGNITE

Last year was the first time we had collaborated with other Engineering Student Organizations (ESOs) at UCI - Latinos in Science and Engineering (MAES), Society of Women Engineers (SWE), National Society of Black Engineers (NSBE), American Institute of Chemical Engineers (AlChE), and Society of Hispanic Professional Engineers (SHPE) - for an Outreach event called INSPIRE. This year, we named the event IGNITE due to a conflicting event at UCI named INSPIRE. IGNITE, which began planning at the start of our Winter Quarter, will be bigger and better this year.

First, we expanded our target audience to improve turnout. Each ESO is responsible for emailing schools from their contact lists, which has been much more successful at garnering interest and RSVPs than one organization contacting everyone. Due to planning IGNITE further in advance, we were able to receive funding from the Office of Access and Inclusion (OAI) for our venue, breakfast/lunch, raffle prizes, and other items we needed for the event. This all-day event will introduce middle and high school students of any background and interest to STEM and engineering. After checking in and eating breakfast (a selection of pastries and juices), students will be introduced to all of the organizations in Engineering Hall. This is also where expectations for behavior and safety will be established for the day since there will be younger students attending.

Next, the lab tours and activity stations will simultaneously begin. The lab tour will have 3 groups of 15 people that rotate between 3 labs and receive presentations and demonstrations from students and professors about their research or project. We are aiming to recruit between 10-20 professors and senior design projects who will host lab tours for one or both of the sessions. Students will be divided into groups based on wristbands. At the activity stations, each organization will plan to host an activity that the remaining students can participate in. These activities are creating slime, building a stethoscope, marshmallow catapult, popsicle structure, and foil boats, with BMES hosting an activity called Protect the King. In this game, students will construct towers using red Solo cups to protect a tennis ball (their "King"). Activities will range from being hosted outside or inside depending on how messy they are. After a lunch of Costco pizza, chips, cookies, and water organized by BMES, students who were at lab tours will have the opportunity to participate in activities, and students who did activities can attend the lab tours.

The second round of activities differs from the first - wind generator, strawberry DNA, citrus electricity, car racer, and LED lightsaber, with BMES hosting a prosthetic hand activity called Give Me A Hand. The second round of activities/tours will be concluded for the students to be brought inside for industry professionals and admissions presentations/panels. They will have the opportunity to ask questions and learn about what a career in engineering may look like as well as how to get into an engineering program, which can be a highly competitive process. Parents and teachers attending this event can also ask questions they may have.

Finally, a raffle will be held at the end of the day to award prizes to the event attendees. Prizes include a basket of UCI merchandise (hat, mug, pens, pencils, notebooks, Anteater plush, pennant, baseball cap), a hydraulic robot arm kit, and a basket of snacks and gift cards. For such a large event, each organization will collect volunteers to ensure that enough help is provided for all of the itinerary items. In the Spring IGNITE meetings, the selected venues were confirmed to be booked, the budget was completed, and each organization has been contacting schools and acquiring the items needed for their activities. Lab tours have been confirmed for about 9 out of the 20 projected labs for the event. The RSVP form is currently at 185 responses, not counting parents and teachers. We are excited at the interest in this event, and several middle/high schools have also reached out about hosting field trips next school year. This would be a great expansion of our growing Outreach program, and could potentially allow students to learn about the BME and Jr. BME program. Over the next few weeks, we aim to get the rest of our budget items in order with OAI, close the RSVP by May 4th, and send out the liability waivers to the attending students' parents. Overall, we expect to improve our turnout of sixty attendees from last year and host this event in a more streamlined manner to IGNITE a passion for STEM and engineering in middle and high school students.

Date	Audience	Estimated Attendance	Estimated Cost
5/25/24	High School Students Parents	200 High School Students 50 Parents	\$35.00

XI. Mentoring Activities

BMES at UCI offers a unique Mentorship Program in which undergraduate lowerclassmen are paired with an upperclassman and a professional mentor. This group structure offered both academic and social advice as well as professional and industry-related advice for all students involved. The Mentorship Meet and Greet kicked off the program for the year. Students were encouraged to network with professional mentors at the event, and after we inquired about their preferences for mentors and BMES at UCI coordinators were able to form groups based on their interests. Doing so ensured students could get the most out of this mentorship opportunity. Another incentive to help encourage groups to meet was a friendly competition in which groups were awarded points for meeting outside of class or attending Mentorship events. Throughout the academic year, the Mentorship Program held various events to encourage socialization and offer professional development. Trivia was a big hit with our members as evidenced by the competitive nature of many who attended, on the other hand, the Grad School, Med School & Industry Panel was a great opportunity for students to get career advice from professional mentors in various BME-related fields. Overall, the turnout and retention for the program exceeded expectations and was a main reason for the camaraderie and friendship among many of our general members.

Date	Events
10/18/23	Mentorship Meet & Greet
10/25/23	Mentorship Bonfire
11/8/23	Mentorship Reveal
1/8 - 3/15/24	Winter Biweekly Challenges
2/1/24	Mentorship Trivia
2/22/24	Grad School, Med School & Industry Panel
3/14/24	Mentorship Study Hours
4/10/24	Mentorship Picnic
4/24/24	Careers in BME Panel
5/8/24	Mentorship Scavenger Hunt

Table	11: List	of Mentoring	Activities.
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Fall Quarter

XI.A. Mentorship Meet & Greet

The Mentorship Meet & Greet was a casual take and revamp of our Networking Night from previous years to provide a more easygoing and lighthearted environment for students and members. This event allowed students to meet and converse with their prospective Professional Mentors before identifying the top 3 candidates as their Professional Mentors. To start off, the Mentorship Coordinators covered upcoming events and the structure of the event. During the first fifteen minutes of the event, the mentorship coordinators explained what the mentorship program would entail and the purpose of the event. They then explained how the professional mentors were grouped so students could choose who to talk to based on their professional interests after graduation. The Professional Mentors were then split up into their professional pathways of industry, academia or graduate school, and medical school. Questions and topics were put up on the board to facilitate conversations between undergraduate students and Professional Mentors. The students were then allowed to disperse and talk to Professional Mentors about their desired career path or to just network in general. Board Members also connected with undergraduate students and guided latecomers and shy members to join ongoing discussions with a Professional Mentor. Every fifteen minutes during the event, the mentorship coordinators would remind and encourage students to rotate and talk to other mentors to ensure that students had the opportunity to meet as many Professional Mentors as they could. At the end of the event, the Mentorship Preference Form was provided so students could choose which Professional Mentors they preferred to be paired with. Overall, the event was a great success, and many students, especially the first-year students, loved the casual and welcoming atmosphere that the event provided. The event was well-organized and the Professional Mentors appreciated the event as well!



Date	Audience	Attendance	Cost
10/18/23	Undergraduate	44 Undergraduates	\$144.16

6:30 PM - 7:30 PM	Students Graduate Students Medical Students Professional Mentors	6 Professional Mentors 2 Graduate Students	
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XI.B. Mentorship Bonfire

While the Mentorship Meet & Greet was dedicated to meeting Professional Mentors, the Mentorship Bonfire was the first mentorship event where undergraduate students (upperclassmen and underclassmen) had the opportunity to meet each other before Mentorship Groups were formed. The bonfire provided an environment where future student mentees and mentors could socialize and influence students' picks for who they want in their mentorship group. Since the mentorship program is based on group camaraderie, the bonfire offered a good occasion to make friends. The event started roughly around 4 PM with many students bringing snacks and food. The first hour and a half was spent socializing and eating food. During this time, students were talking to each other and building relationships. Students also played Spikeball, sang along to the music, and played volleyball. At around 6 pm, s'mores were brought out and students enjoyed making their own s'mores over the fire. Once the event was over around 7 PM, the mentorship preference form was released so students could start determining who they wanted in their group. The bonfire was an effective way of getting students involved and excited about mentorship and also allowed them to create relationships they could carry into their mentorship groups. Many students were able to be paired with their student mentor of choice as a result of the bonfire!

Date	Audience	Attendance	Cost
10/25/23	Undergraduate	30 Undergraduate	\$119.36
4:00 PM - 7:00 PM	Students	Students	

XI.C. Mentorship Reveal

The Mentorship Reveal was the biggest mentorship event of the year and implemented an innovative and enjoyable way for groups to gather and meet for the first time! At this event, everyone part of the program found out who their mentorship group consisted of. The first fifteen minutes of the event were spent checking in with undergraduate students to confirm their memberships, tell them their group numbers, and hand out T-shirts. Professional Mentors were able to find their group numbers. Group numbers were placed on each table in the lecture hall and attendees would search for their numbers and sit with their groups. While waiting, each group got to know each other, exchanged contact information, and took pictures at the BMES backdrop as a memory. Once everyone was with their groups, the Mentorship Coordinators announced the first mentorship challenge of the year– an egg drop challenge! This was an opportunity for groups to earn their first points, which will be tallied for the rest of the year. Each group had a limited amount of materials, including paper, tape, cups, cotton balls, and rubber bands. They had thirty minutes to build a contraption to protect an egg from cracking when dropped from the second floor of the Rockwell Engineering Building onto cement. This activity encouraged teamwork within the groups and created competition which further strengthened the bonds within the groups. Once the thirty minutes were up, all groups went outside and one of the Mentorship Coordinators dropped the contraption while the Board Members determined if the egg cracked or not and tallied up the points for the groups. The event was extremely successful, with at least two members from each group in attendance and 25 groups in total! Our event featured a new activity that BMES had not done before, which made it amusing and engaging.



Date	Audience	Attendance	Cost
11/8/23 6:30 PM - 7:30 PM	Undergraduate Students Graduate Students Medical Students Professional Mentors	76 Undergraduate Students	\$ 122.09

Winter Quarter

XI.D. Winter Biweekly Challenges

This quarter, the Mentorship Coordinators brought back Biweekly Challenges, as these were a great way to get mentorship groups to get together and have a chance to compete against other groups. Beginning in Week 2, a new biweekly challenge was announced and points were awarded to those who submitted a photo to the Discord channel. Biweekly challenges included resume building, getting a meal together, doing a fun activity (bowling, watching a movie, etc), and having a study session. Points were also awarded to teams that attended the Mentorship events.

Date	Challenge	Audience	Cost
1/8-1/28/24	Get a meal together		
1/29-2/11/24	Resume building	Undergraduate	<i>#</i> 0.00
2/12-2/25/24	Fun excursion	Students Professional Mentors	\$0.00
2/26-3/15/24	Study session		

XI.E. Mentorship Trivia

The Mentorship Trivia was hosted with the intent of providing a social gathering for Mentorship Groups and challenging the groups to a game of Jeopardy. We opened this event to all members, not just those in the Mentorship Program. For those without a group, we split them up evenly into the pre-set Mentorship groups. The event started with upcoming event announcements, and the Mentorship Coordinators then moved into Jeopardy. The Jeopardy consisted of a variety of topics including UCI facts, BMES facts, food, movies, and geography. We followed the typical rules of Jeopardy, including answering in the form of a question and buzzing in using the MultiBuzzer application. At the end of the event, the teams in first, second, and third place received small candy bars as prizes and additional points were awarded to the first place team. We brought back this event based on feedback from the previous years, and we will continue the tradition of hosting a trivia event for the Mentorship Groups.



Date	Audience	Attendance	Cost
2/1/24	Undergraduate Students	29 Undergraduate Students	\$0.00

Professional Mentors		
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XI.F. Grad School, Med School & Industry Panel

The Grad School, Med School, and Industry Panel served to educate undergraduate students about professional prospects post-graduation and strengthen our connections with UCI alumni, medical school students, and UCI graduate students. The panel consisted of two graduate students (one in the Master's of Engineering Program and a Ph.D Candidate), two industry professionals, and two medical school students (one of whom was on Zoom) who answered students' questions about their professional careers. Five of the panelists were Professional Mentors in the Mentorship Program. Once all the panelists arrived, we introduced each of them and shared their academic and professional background. Afterwards, the Mentorship Coordinators opened the floor to attendees and members to ask questions addressed to all panelists, such as their journey, the requirements for specific career path, and advice for students that want to pursue a similar pathway. Students also asked about how to obtain research positions and internships, how to search and apply for jobs, how to apply to medical school, and what experiences made them stand out to employers and/or graduate and medical schools. Questions were general or specific to a career path. This event was an opportunity for students to learn about the possible career pathways that they can pursue after graduation and hear about the panelists' experiences. Board Members prepared questions for the panelists in case attendees could not think of questions. After the Q&A session, students approached the Professional Mentors to network, exchange contact information, and as questions 1-on-1. When we held this event last year, we wanted to get more panelists, especially those that are older, have been in the field longer, and have unique experiences. This year, we were able to obtain two medical school students for the panel, both of which had very different paths to get into medical school. The graduate school students were also in different programs, which offered varying perspectives. The industry professionals were working in two different industries and provided great insight into their paths to their current jobs. Overall, attendees left the event with advice about how to approach the next steps in their professional or academic journey and new connections, which were the main goals of the panel.



Date	Audience	Attendance	Cost
2/22/24 6:30 PM - 7:30 PM	Undergraduate Students Graduate Students Medical Students Professional Mentors	25 Undergraduate Students 5 Professional Mentors (2 UCI Graduate Students, 2 Industry Professionals, 1 UCI Medical School Student) 1 Medical School Student	\$10.72

XI.G. Mentorship Study Hours

The Study Hours Event was a casual event open to all BMES members to study for finals. Students were encouraged to attend and study with their Mentorship Group. It was also an open space for members to work together on any projects or last-minute assignments they may have. The event was an hour-long session for students to study individually, in pairs, or in a group and collaborate on assignments. We played soft study music that added to the ambience. To celebrate Pi day, a few Board Members made a pie to celebrate two other Board Members' birthdays. Overall, it was a relaxing and low stakes environment for attendees to gather and earn some extra points for their Mentorship Group.

Date	Audience	Attendance	Cost
3/14/24	Undergraduate	23 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

Spring Quarter

XI.H. Mentorship Picnic

Our Mentorship Coordinators planned and hosted the Mentorship Picnic, which took place in the middle of Aldrich Park starting at 5 PM. Many Mentorship Groups attended as well as other BMES members. The picnic was a perfect event to encourage socializing and a relaxing setting to enjoy a sunny evening. The turnout was great and there were a variety of activities to do depending on what people wanted to participate in. Some members set up blankets and played card games while others participated in playing soccer, spikeball, and frisbee. We played an ultimate frisbee game and a mini-soccer game. Many people continued to play sports and hang out well after 6:30 PM. Costco pizza was also provided so everyone could have a bite to eat. Overall, the event was a tremendous success and we hope to be able to host a fun gathering again!



4/10/24	Undergraduate	30 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XI.I. Careers in BME Panel

The Careers in BME Panel was a great event to highlight the variety of roles that one could have after graduating with a BME degree. Our panel consisted of four individuals currently working in the industry from well-known companies including Edwards Lifesciences, Medtronic, Alcon, and Nihon Kohden. After a quick introduction of each panelist, we opened up the floor for questions for our panelists. Many students had very insightful questions and every panelist was very active in answering everyone's questions. Toward the end of the event, we also allowed students to network with our panelists to help them build their network and improve their communication skills. The panel was helpful for undergraduate students in learning about and discovering a career pathway that they may be interested in pursuing.

Date	Audience	Attendance	Cost
4/24/24	Undergraduate	14 Undergraduate	\$10.72
6:30 PM - 7:30 PM	Students	Students	

XI.J. Mentorship Scavenger Hunt

The Scavenger Hunt was the last mentorship event of the year and the last opportunity to gain points before prizes were awarded to winning teams at the BMES Banquet. The hunt began at MDEA where all mentorship groups formed teams of 4-6 members, the coordinators introduced the event, and teams were told what to find to complete the scavenger hunt. The scavenger hunt took place all around the UCI campus and was designed so teams could finish within 30-40 minutes. Once the teams completed the hunt, they returned to MDEA and received points based on how many of their group members showed up and the completion of the scavenger hunt. Winners were awarded candy bars or boxes of their choice. The event was a fun way for groups to get together once more before the banquet. The teams finished much earlier than expected, so the Mentorship Coordinators streamed the NBA playoff games in the lecture hall for the members to enjoy.

Date	Audience	Attendance	Cost
4/24/24	Undergraduate	21 Undergraduate	\$7.74
6:30 PM - 7:30 PM	Students	Students	

XII. Industry and Professional Development Activities

BMES at UCI prioritizes the professional development of its members as such, we attempt to provide ample opportunities for students to grow their professional network as well as understand the BME field and the many career paths that it entails. BMES at UCI has grown its relationship with medical device companies local to Orange County, and as such, offers events such as the Microvention Info Session and the Phillips Medisize Company Talk. Events such as these allow students to learn about open internships and full-time roles at these companies, while also getting exposure to the roles they may be interested in pursuing in the future. One of the largest career-tailored events for the Industry Sector at BMES at UCI is Industry Night. The career fair-style event hosted 15+ company representatives and welcomed over 150 students eager to network. Along with events tailored to professional development, BMES at UCI also hosts events targeted to students' academic interests, mainly in undergraduate research. Research Symposiums allowed labs to showcase their research to interested students and advertise open positions. BMES at UCI is continuously proud to offer its students opportunities to grow in their careers both in the present and in the future.

Date	Event
10/20/23	Inari Company Tour
11/1/23	Division of Career Pathways (DCP) Resume Workshop
11/1/23	Microvention Info Session
11/13/23	Fall Industry Conference
1/18/24	Pre-Industry Night
1/22/24	Industry Night
2/15/24	Phillips Medisize Info Session
4/12/24	Medtronic Company Tour
4/16/24	Research Symposium

Table 12: List of Industry and Professional Development Activities

XII.A. Inari Company Tour

BMES at UCI aims to maintain our connections with local medical device companies and thus collaborated with Inari Medical to organize a company tour at their main office. Inari Medical

specializes in removing heart blood clots and transforming the lives of patients with venous diseases. BMES at UCI extended a rare opportunity to UCI, inviting students to explore the company grounds, experience product demonstrations, and engage in conversations with industry professionals. Members of BMES at UCI also seized the valuable chance to delve into Inari's upcoming internship program, gaining insights into potential career pathways both during and after college. This exclusive event not only provided a firsthand look into Inari Medical's innovative work but also facilitated meaningful connections and offered a glimpse into future opportunities for aspiring professionals in the field.

Date	Audience	Attendance	Cost
10/20/23	Undergraduate	16 Undergraduate	\$0.00
9 AM - 11 AM	Students	Students	

XII.B. Division of Career Pathways (DCP) Networking and Resume Workshop

The networking workshop at DCP was a collaboration between BMES at UCI and UCI's Division of Career Pathways. This workshop provided UCI students with an opportunity to refine their networking and interviewing skills. During the workshop, DCP delivered an engaging presentation on how to pitch yourself to companies, while experienced BMES board members and industry professionals assisted the presenter.

Throughout the workshop, there were three stations: a place to take a professional headshot, pitching practice, and resume help. At the professional headshot station, students had the chance to enhance their professional online presence by getting a high-quality headshot taken. The pitching practice station allowed students to refine their elevator pitches and communication skills. Industry professionals (who were all alumni) and BMES board members provided valuable feedback, helping students tailor their pitches to effectively convey their strengths, experiences, and aspirations. At the resume help station, students received personalized guidance on crafting impactful resumes. In this station, both industry professionals and BMES board members offered insights into resume formatting, content optimization, and key elements that capture the attention of recruiters.

Overall, the workshop was a success, as it seemed to be enjoyed by UCI students who attended. This workshop not only helped refine their pitching skills and resumes but also provided them with valuable connections with industry professionals who participated in the event.

Date	Audience	Attendance	Cost
11/1/23	Undergraduate	10 Undergraduate	\$0.00
4:30 PM - 5:30 PM	Students	Students	

3 Alumni 2 DCP Employees

XII.C. Microvention Info Session

Following the DCP Networking and Resume Workshop, Tony Sciarra and colleagues hosted an information session on behalf of MicroVention-Terumo for UCI students and BMES at UCI members. The session provided a comprehensive insight into the innovative landscape of neuroendovascular medical devices. As a leading company specializing in minimally invasive solutions for vascular diseases in the brain, MicroVention Terumo provided a captivating overview of its cutting-edge technologies. The session delved into the intricate design and development processes of their medical devices, highlighting the company's commitment to advancing treatment options. Attendees had the unique opportunity to engage with Tony, gaining valuable perspectives on the intersection of medical technology and neurovascular care. The presentation showcased MicroVention Terumo's upcoming internship programs for any students interested in holding a future position at Microvention. Their variety of different internship programs encouraged students to ask questions about what each position is in charge of. This informative event not only expanded students' understanding of neuroendovascular advancements but also inspired future innovators in the pursuit of medical solutions for complex vascular challenges in the brain. At the end of the event, students were able to network with the MicroVention employees one-on-one.



Date	Audience	Attendance	Cost
11/1/23	Undergraduate	21 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XII.D. Fall Industry Conference

BMES at UCI successfully organized our first-ever Fall Industry Conference, a fall career fair tailored for biomedical engineering students seeking internships and job opportunities. This event had a variety of exhibitors, from global companies (Johnson and Johnson, Medtronic) to smaller companies (M4D). There were even resources from the school (DCP and UCI Masters of Engineering) for students at the event. Many companies open internship applications in the Fall Quarter, as we gathered from company feedback at our career fair last year. Thus, we hosted this event to give our members and UCI students a platform to connect with local industry professionals and begin their internship search earlier in the academic year.

This event welcomed company representatives to engage with students in a more intimate setting. Participants enjoyed complimentary refreshments catered from BJ's throughout the evening. The career fair, characterized by its smaller scale, allowed companies to showcase their offerings with individual booths, conduct product demonstrations, accept resumes, and distribute informational flyers.

To prepare for the event, BMES at UCI was responsible for reserving and planning since nearly the beginning of the school year. The aim was to ensure ease and convenience for both student attendees and company representatives. One effective strategy involved setting up a website with details about the event and the participating companies. The site also hosted RSVP forms and the electronic resume bank submission form. On the day of the event, BMES at UCI board members were available throughout the event to address any questions or concerns from students or representatives.

For many students, this was their first in-person career fair, and it was gratifying to witness students of all experience levels and grades networking in their professional attire. Recruiters showcased the technical aspects of their work, bringing physical prototypes of their devices and employing other methods of demonstration. Students had the option to submit their resumes to an electronic resume bank set up by BMES at UCI or bring physical copies to the event, with many students choosing to do both.

The positive response from attendees was evident both during and after the event. Numerous expressions of gratitude were conveyed via LinkedIn and email, with inquiries about the possibility of hosting a similar event in the near future. Overall, the career fair was a success, offering valuable networking opportunities and insights into potential career paths for biomedical engineering students.





Date	Audience	Attendance	Cost
11/13/23 4:30 PM - 7:30 PM	Undergraduate Students Graduate Students Industry Professionals Alumni	131 Undergraduate Students 20 Graduate Students 6 Alumni	\$1039.92

Winter Quarter

XII.E. Pre-Industry Night

The Pre-Industry Night workshop was a pivotal event for first-year students, offering them invaluable insights and practical guidance as they prepared to navigate their first career fair. Led by BMES

industry correspondents, the workshop provided a platform for students to have their questions answered and doubts clarified, particularly beneficial for those who were new to the career fair experience.

One of the key highlights of the workshop was the emphasis on proper research techniques before engaging with company representatives. Presenters demonstrated how to conduct thorough research on companies, enabling students to tailor their pitches effectively and demonstrate genuine interest during interactions at the career fair. By understanding the company's background, culture, and current projects, students could craft compelling introductions and engage in more meaningful conversations with recruiters. Our industry correspondents delivered a comprehensive lecture on crafting effective resumes, covering essential components and strategies for making a standout impression. Following this, Joshua Varela guided students in delivering compelling self-introductions, emphasizing the importance of confidence and clarity in communication.

The latter part of the workshop was dedicated to individual resume critiques, providing students with personalized feedback to refine their resumes further. This hands-on approach allowed students to apply the knowledge gained immediately, ensuring that they left the workshop with polished resumes and enhanced presentation skills. Moreover, the workshop served as a primer for the format and organization of the upcoming BMES Industry Night, ensuring students were well-prepared for the event. By familiarizing them with the event's structure and expectations, the workshop equipped students with the confidence and know-how to navigate the career fair successfully.

Date	Audience	Attendance	Cost
1/18/24 6:30 PM -7:30 PM	Undergraduate Students Graduate Students	20 Undergraduate Students	\$0.00

XII.F. Industry Night

The BMES Annual Industry Night, held on January 22nd, 2024, from 4:30 PM to 7:30 PM at UCI, was a landmark event this year, drawing over 150 students eager to engage with more than 15 companies and academic entities in the medical device sector. This event provided a unique platform for students to directly interact with recruiters and engineers, understanding the innovative work their companies are involved in, as well as exploring potential career paths. The evening showcased a wide range of participants, from industry giants like Medtronic, Johnson & Johnson, and Edwards Lifesciences, to dynamic startups and advanced academic programs like the UCI Masters of Engineering.

The BMES at UCI team dedicated months of planning and coordination to ensure the event ran smoothly, prioritizing accessibility and convenience for both the students and the participating organizations. A dedicated event website was developed, featuring essential information, RSVP forms, and a platform for students to submit their resumes electronically. BMES at UCI board members were also on hand throughout the event to assist and address any inquiries from the attendees.

The event was particularly significant for many students as it marked their first in-person career fair experience. It was encouraging to see a diverse turnout, with students from various academic levels attending in professional attire. Recruiters enhanced the experience by showcasing physical prototypes and offering demonstrations to illustrate the technical intricacies of their work. Students had the flexibility to submit their resumes through the electronic resume bank provided by BMES at UCI or to present hard copies in person, with many opting for both methods.

A highlight of the evening and an addition to the career fair was a seminar conducted by Maaikee Pronda from Applied Medical and UCI alumni, which offered valuable insights into the transition from engineering academia to the medtech industry, enriching the student's learning experience. Students were then able to apply her advice immediately after the seminar at the company booths next door!

The feedback from participants was overwhelmingly positive, with many expressing their gratitude through LinkedIn and emails post-event. There was also a notable interest in organizing a similar event in the future, reflecting the success and impact of this year's Industry Night. Numerous members and students were able to obtain interviews and land a summer internship by networking with industry representatives at Industry Night.





Date	Audience	Attendance	Cost
1/22/24 4:30 PM - 7:30 PM	Undergraduate Students Graduate Students Industry Professionals Faculty	162 Undergraduate Students	\$529.95

VII.G. Phillips Medisize Company Talk

BMES at UCI continued to maintain relationships with our local industry contacts and invited Phillips-Medisize for a company talk. The event was open to all undergraduate students at UCI but was primarily targeted to the Biomedical Engineering (BME) and Mechanical Engineering (MechE) undergraduate students of all years and skill levels. The purpose of the Phillips-Medisize Company Talk was to provide students with the opportunity to speak directly with company representatives, learn about the company's mission, internship opportunities, and involvement, and cultivate interest in the company. The event began with general announcements from industry correspondents who later introduced Kamalesh Ananthakrishnan, Project Engineer at Phillips-Medisize. He spoke about the company's philosophy, and career opportunities. Attendees were also provided with direct access to internship and full-time applications through a QR code. The outcome of the event was highly successful, the engineer from Phillips-Medisize provided valuable insights into the company's operations and answered questions from the attendees. The attendees had the opportunity to interact with the employees and get a personal feel for the company's culture. At the end of the event, the engineer engaged with students who had further questions or wanted to learn more about the company. The audience at the Phillips-Medisize Company Talk demonstrated genuine interest and engagement, particularly towards Kamalesh Ananthakrishnan, an alumnus of UCI and a past board member of BMES at UCI. Kamalesh's background added a personal touch to the event, as he provided personalized answers to each member's questions, drawing from his own experiences and insights. The Phillips-Medisize Company Talk provided a valuable opportunity for UCI students to learn about potential career prospects and interact with industry professionals.

Date	Audience	Attendance	Cost
2/15/24 6:30 PM - 7:30 PM	Undergraduate Students Graduate Students	30 Undergraduate Students	\$0.00

Spring Quarter

VII.H. Medtronic Neurovascular Company Tour

The Medtronic Company Tour was an event designed to expose undergraduate BME students at UC Irvine to a professional working environment in a large biomedical company. Taking place on April 12th from 2-4:15 PM at the Medtronic Brain Therapies location near the UCI campus, this event provided students with the opportunity to network with Medtronic employees and gain hands-on experience with medical devices such as catheters, surgical tools, biplane rooms, and aneurysm flow diverters. Products such as RISTTM Radial Access System, PHENOMTM Catheters, REACTTM Aspiration and Delivery Catheters were on display and students got hands-on experience with using them. The purpose of the Medtronic Company Tour was to provide students with a unique learning opportunity that allowed them to see what it was like to work at a company like Medtronic and to connect with employees and leaders in the industry. This event also gave students the chance to ask questions and get a better understanding of what goes on in a professional setting. After the tour, attendees had the opportunity to split into smaller groups for more in-depth discussions and networking with Medtronic employees. This provided students with valuable connections and the chance to make lasting impressions on industry professionals. Overall, the outcome of the Medtronic Company Tour was a successful and informative event for all attendees. By exposing undergraduate BME students to a working environment at Medtronic, we provided valuable insights that can help students in their future careers. With the guidance of R&D Engineer: Annie Zhao, attendees were able to have a meaningful experience at the Medtronic Company Tour.

Date	Audience	Attendance	Cost
4/12/24 2:00 PM - 4:15 PM	Undergraduate Students	41 Undergraduate Students	\$0.00

VII.I. Research Symposium

Undergraduate research is extremely valuable for allowing students to get hands-on experience and gain knowledge in fields that interest them. However, especially for those with little previous experience, it can be daunting to reach out to professors or graduate students about positions. Because of this, BMES at UCI hosted a Research Symposium to facilitate casual conversation between labs and students in the hopes of encouraging participation in research. The BMES Research Symposium had 15+ labs come to table at the event. Many brought posters, informative slides, or even tri-fold displays to show the work they do in their respective labs. Students could meander through the aisle and speak to labs that looked interesting to them. Additionally, presenters were able to inform students about potential openings for undergraduates in their labs.





Date	Audience	Attendance	Cost
4/16/24 12:00 PM - 3:00 PM	Undergraduate Students Graduate Students	62 Undergraduate Students 12 Graduate Students	\$262.16

XIII. Societal Impact Activities

BMES at UCI emphasizes cultivating the innovative and creative side of its members. The medical device industry is constantly growing and to prepare students for such a fast-moving field, BMES at UCI hosts events to not only strengthen the technical skills of its members but also to challenge them to think outside the box and use what they have learned to solve complex problems. Technical workshops were primarily hosted at the beginning of the academic year to expose students to skills they will need to know to succeed in industry. To end the fall quarter, a Technical Triathlon was held to test members on what they learned in a competitive environment. The second half of the academic year was focused on teaching students about ideation and what that entails as a product moves past being just an idea. One of the larger events this year was the Medtech Pitch Competition where students showcased what they had learned to pitch their ideas to academic and industry professionals. These workshops and other events were hosted to prepare and motivate students to consider participating in the National BMES Student Design Competition.

Date	Event
10/2/23	Project Symposium
10/5/23	Solidworks Workshop
10/24/23	Coding Workshop
11/7/23	Arduino Workshop
11/15/23	Technical Triathlon
11/28/23	Resume Workshop & Project Social
1/16 & 1/30/24	Mini Projects
2/6/24	Entrepreneurial Speaker Night
2/13/24	Ideation Workshop: MedTech Pitch Competition Kickoff
2/27/24	MedTech Prep Workshop
3/2/24	MedTech Pitch Competition
3/7/24	National BMES Kickoff

Table 13: List of Societal Impact Activities

4/9/24	National BMES Proposal Kickoff
4/23/24, 5/7/24	Proposal Check-Ins
5/21/24*	Proposal Review Session

* Future Event

XIII.A. Project Symposium

BMES at UCI is one of many student organizations at UCI that offers an opportunity to be involved in an extracurricular project tailored to providing students with technical experience. Our organization focuses our program on improving and creating medical devices in the greater biotechnology industry to address unmet clinical needs. BMES at UCI hosted the second annual Cross-ESO Project Symposium in collaboration with eight other Engineering Student Organizations (ESO): Anteater Robotics Engineering, American Institute of Chemical Engineers - ChemE Car, American Society of Mechanical Engineers, American Society of Civil Engineers, Engineers for a Sustainable World, Engineers Without Borders, Institute of Electrical and Electronics Engineers, and ZOTBotics' Introductory Training at UCI. This event intended to expose engineering and other STEM undergraduates to different projects that each participating organization was currently working on. The first half of the event consisted of presentations from each organization and the types of projects they would be supporting for the upcoming school year. After the initial presentations, students were escorted to an outdoor plaza where students could speak with current project teams and potentially get recruited. BMES at UCI advertised technical workshops, mini-projects, and large events such as the Technical Triathlon, Pitch Competition, and National BMES Project Competition. BMES at UCI wanted to share and promote the projects that we previously offered to emphasize the interdisciplinary nature of biomedical engineering and diversify our organization. The outcome of this event showed a large turnout of over 150 attendees who were eager to learn more about student-run project programs. BMES at UCI was able to recruit many project members during this event and we spoke to many students interested in the BMES events and projects. BMES also became more familiar with other organizations to plan collaborations for workshops later in the year.



Date	Audience	Attendance	Cost
10/2/23	Undergraduate	151 Undergraduate	\$46.50
4:30 PM - 6:30 PM	Students	Students	

XIII.B. Solidworks Workshop

The Solidworks Workshop was the first official BMES at UCI Project workshop of the year. The goal for the Project Coordinators was to provide students with technical skills and guide them in using accumulated skills in real-life, applicable projects. For this workshop, the Project Coordinators hosted a free technical workshop to see if members would want to participate as project members for the rest of the year as official members. The goal was to get everyone excited about Solidworks and teach the basics of the CAD Program while building their personalized keychain. Each participating member would be able to create a basic, personalized keychain in this workshop which would be 3D printed and distributed to participating members during the following Project workshop. The outcome of this event was over 60 students showed up with 55 students completing the keychain with the direction and demonstration of the Project Coordinators and the help of volunteers. The keychains were then 3D printed and given to each member who completed creating the keychain at the Coding Workshop.



Date	Audience	Attendance	Cost
10/5/23	Undergraduate	62 Undergraduate	\$28.42
5:00 PM - 6:00 PM	Students	Students	

XIII.C. Coding Workshop

The Coding Workshop marked the second technical workshop of the quarter, adding another invaluable skill to our project members' belts. The mission of this workshop was clear: provide an informative introduction to Matlab, a useful tool that is commonly used for both BME courses and research. The workshop revolved around a captivating matrix-oriented program to not only teach students about the syntax of Matlab but also share boundless potential applications of MATLAB in engineering and research. Through this workshop, students were guided through the basic functions, script creation, and the art of coding loops. The workshop ended with a short challenge, where each participant showcased their newly learned skills by programming intricate scripts and creating their plots using data gathered from COVID-19 statistics. In total, 18 project members attended and completed the challenge given.

Date	Audience	Attendance	Cost
10/24/23	Undergraduate	18 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XIII.D. Arduino Workshop

The Arduino Workshop was held as the third and final workshop hosted by the BMES at UCI Project Coordinators, concluding the technical workshops for the fall quarter. The purpose of this event was to introduce students to understanding how to use an Arduino IDE and the basics of a breadboard and Arduino Nano with resistors and lights. During this workshop, the Project Coordinators did a concept review of the Physics: Electricity and Magnetism course, which briefly reminded students how series and parallel circuits worked. This review also introduced Ohm's Law to allow the students to conceptually understand why certain items on the breadboard are positioned in that order. After that, students were taught how to code an Arduino stoplight with some basic syntax of the Arduino IDE. Using this code, they assembled the breadboards, Arduino Nano, resistors, and lights to complete a small circuit that represented how a stop light may work based on simple criteria in the code. Every student was able to use a breadboard and code on a computer, allowing them to receive hands-on experience during this workshop. This workshop also would help prepare students for the Technical Triathlon which would test their abilities to complete challenges in SolidWorks, MATLAB, and Arduino in a certain time frame in a competitive environment.

Date	Audience	Attendance	Cost
11/7/23	Undergraduate	25 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XIII.E. Technical Triathlon

The 3rd Annual Technical Triathlon was hosted by the BMES at UCI Project Coordinators as an opportunity for students to participate in a competition to test their comprehension of common technical skills used in the BME industry such as SolidWorks, MATLAB, and Arduino. This competition was low-stakes but there was a cash prize for the winning team in the beginning track and advanced track. There were a few main rules that all participants followed to make sure they were eligible for the cash prize. The first rule was to not look up anything on the internet. The second rule was to only work within their teams and to only use 1 computer per team. The final rule was that teams may not move on to another task if they had not completed the task they were working on. During this event, there was a maximum of 3 people per team, and upperclassmen students were only allowed to participate in the advanced track.

With SolidWorks, students in the beginner track had to essentially create one very simple rectangular prism that had a few extruded cuts throughout the shape. For the advanced track, students were tested with a question that represented questions on the CSWA exam, and the shape was similar to a wheel. For MATLAB, students in the beginner track had to code a few very simple tasks that would test their knowledge of if-statements, plotting a graph, and using basic equations. In the advanced track, participants were challenged to create a task manager that had multiple criteria. For the last challenge in Arduino, beginner students had to make two LEDs blink using Arduino but the challenge was to make one LED blink twice as fast as the other. For the advanced track, there were challenges to make an LCD display the value of a potentiometer based on certain criteria and to display "GO BMES!" on the second line of the LCD depending on the criteria.

Two teams successfully won the competition and were able to walk away with the \$75 Cash Prize per team while being able to apply the skills they learned from the workshops.



Date	Audience	Attendance	Cost
11/15/23	Undergraduate	29 Undergraduate	\$150.00
6:30 PM - 8:30 PM	Students	Students	

XIII.F. Resume Workshop & Project Social

The Resume Workshop and Project Social was combined with a Cha Tea fundraiser held by our Outreach Coordinators, adding an extra layer of enjoyment and purpose to the gathering. This event presented a unique opportunity for participants to not only socialize over boba drinks but also receive valuable feedback on their resumes from Project Coordinators. As attendees engaged in casual conversations and networking, they had the chance to connect with older students who could offer insights and guidance on their career paths. The Project Coordinators helped attendees refine their resumes and tailor them to specific career goals. Moreover, the relaxed atmosphere created by the boba fundraiser encouraged conversation and camaraderie among participants, facilitating meaningful casual interactions. In this collaborative environment, attendees could not only enhance their resumes but also build connections and relationships that could potentially lead to future opportunities. Thus, the event served as a multifaceted platform for personal and professional growth, combining socializing and resume improvement into a memorable and enjoyable experience for all attendees.

Date	Audience	Attendance	Cost
11/28/23	Undergraduate	20 Undergraduate	\$0.00
5:00 PM - 7:00 PM	Students	Students	

XIII.G. Mini Projects

To start the winter quarter, the project team created a hands-on project for members to develop their technical skills – a smart pill dispenser! In the first of two workshops, the project members filled the UCI Makerspace; all 38 members modeled their own devices with Solidworks and Onshape. Their designs were uploaded to a Google Drive and later 3D-printed by the project coordinators. During the second workshop, the project members received their 3D printed parts along with a stepper motor, stepper motor controller, a screw-mounted button, a 128x32 OLED screen, and an Arduino Nano. They assembled their pill dispensers and programmed them with the Arduino IDE. This process did have a few hiccups with tolerances, as expected with any new engineer's designs, but all the parts fit together after a little bit of filing. Sample code was provided to demonstrate how to use the stepper motor and OLED libraries, and the members were given the freedom to add additional features such as pill count, time since the last pill, pills left, initialization animations, etc. To make this project as equitable as possible, there was no cost to sign up for this project as a project member, and financial assistance was given to those who reached out about the membership fees. This mini-project was designed to apply to all skill levels, with 10 volunteers available at both workshops to guide people who needed assistance. In the end, we achieved our goal of providing a fun and engaging project with all 38 participants completing a working prototype that they could take home and improve further. Participants enjoyed being able to get hands-on with the entire design process: designing, assembling, coding, and testing. In the future, more materials should be purchased and a larger room should be booked to allow for a higher program capacity since sign-ups were closed early due to popular demand.



XIII.H. Entrepreneurial Speaker Night

In our entrepreneurial speaker event, two local medical device and biotech entrepreneurs, Sam Mahmood (Founder & CEO of Surgical Republic LLC) and Alon Wellner (Vice President of Biology & Co-Founder of Aureka Biotechnologies), shared their inspiring journeys with a group of 21 BMES project members. The speakers offered invaluable insights into the entrepreneurial landscape, highlighting the challenges and rewards of venturing into the medical technology and biotech sectors. Attendees had the opportunity to engage directly with the entrepreneurs, posing questions and gaining knowledge about how entrepreneurship can take on different forms, specifically coming from more of a business background with Sam and more of a research standpoint with Alon. Hosted as a webinar over Zoom, the event provided a convenient platform for students to explore the entrepreneurial realm from the comfort of their own spaces. Through candid discussions and real-world anecdotes, participants gained a deeper understanding of the entrepreneurial mindset and the path to success in the biomedical industry. The event catalyzed fostering innovation and ambition among aspiring entrepreneurs, empowering them to pursue their medical device ideas for the MedTech Pitch Competition.

Date	Audience	Attendance	Cost
2/6/24	Undergraduate	21 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XIII.I. Ideation Workshop: MedTech Pitch Competition Kickoff

The project team hosted an ideation workshop for 21 project members led by our project intern An, aimed at inspiring and supporting students in generating medical device ideas. Participants received valuable resources such as websites and library resources that are made available to students through UCI. This workshop served as the kickoff to the quarter's culminating event, the MedTech Pitch Competition. Here, students would apply their entrepreneurial skills to pitch their innovative ideas. By providing an opportunity to discuss how to formulate ideas and offer support throughout the process through group discussions led by An, the workshop empowered students to explore the medical device space through technical and entrepreneurial skills. Through collaboration and mentorship, participants were equipped with the problem-solving mindset and thought process necessary to create impactful solutions in the field of medical devices. The event fostered creativity, innovation, and collaboration, allowing students to then work on coming up with their own unique medical device ideas.

Date	Audience	Attendance	Cost
2/13/24	Undergraduate	21 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XIII.J. MedTech Prep Workshop

The MedTech Preparation Workshop provided a vital platform for 26 participants gearing up for the MedTech Pitch Competition. Attendees gained comprehensive insights into our competition website which detailed expectations and guidelines, equipping them with the necessary tools for success including a helpful website and documents to consult for assistance. The workshop offered feedback from board members as well as the project team on ideas and pitch decks, refining participants' presentations for the esteemed panel of judges. Through this interactive session, participants solidified their ideas, ensuring clarity, purpose, and alignment with industry standards. The event fostered a collaborative environment where aspiring innovators received mentorship and guidance, fostering confidence and readiness for the upcoming competition. Students also reviewed a sample pitch deck created by the project team regarding insulin pumps. This pitch deck would serve as an example for students on what to include and not include in their pitches. For example, in the pitch deck, the visual appeal was lacking while the data and introduction of the problem followed by an explanation of the proposed solution were well done. Students doing different projects were able to see how they could utilize their allotted 7 minutes to persuade the judges that their ideas were valuable.

Date	Audience	Attendance	Cost
2/27/24	Undergraduate	26 Undergraduate	\$0.00

6:30 PM - 7:30 PM	Students	Students	
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XIII.K. MedTech Pitch Competition

To end the Winter Quarter, the BMES at UCI Project Team hosted the MedTech Pitch Competition on Saturday, March 2 from 9:30 AM to 4:30 PM at the McDonnell Douglas Engineering Auditorium. This was a day-long competition where students were able to compete for a cash prize with their entrepreneurial ideas in the medical device industry. The purpose of this event was to allow students who were a part of the project program to showcase ideas that they had been developing throughout the quarter. The goal of this event was to promote entrepreneurship within the UCI community to expose students to how to develop an idea and create a pitch deck for it. This event was also intended for students to develop ideas and prepare for the National BMES Student Design Competition submissions at the end of the academic year. Participants are encouraged and will further develop their ideas to create a proof-of-concept for the competition.

This event started in the morning from 9:30 AM - 12:30 PM by allowing students to finish their pitch decks and continue to work on their ideas while practicing their pitches throughout the morning. Snacks and refreshments were provided by MicroVention-Terumo, a local medical device company in the neurovascular space. The Project Coordinators and Board Members prepped the rooms for the pitches, which will take place after lunch. From 12:30 - 1:30 PM, our team served the students lunch which was also sponsored by MicroVention - Terumo. Following lunch, the judges for the Pitch Competition arrived. During the event, we had 7 judges from SeaSpine, Edwards Lifesciences, Matragenix, Innopiphany, and Johnson & Johnson. The judges present in each room have had years of experience working with medical devices and/or research related to the specific track. There were 12 and each team was given 7 minutes to pitch and 5 minutes for Q&A. From 1:30 - 4 PM, all teams participating presented their ideas to the judges within the three tracks, which were modeled after the National BMES Student Design Competition. Students were able to compete in the following three tracks: Mechanical/Electrical, Chemical/Biological, and Electrical/Computer Science. The judges scored each team on a rubric created by the Project Coordinators. During the Q&A session, judges provided teams with feedback on how to improve their ideas and how feasible their ideas are. After all pitches were complete, the judges deliberated and the Project Coordinators tallied up the scores to identify the winning team from each track. The award ceremony took place at 4 PM, where the winner of each track was awarded the cash prize of \$350, sponsored by Edwards Lifesciences. Teams LegPression, EndoSense, and A-EYE Scan took home the prize for the Mechanical/Electrical, Chemical/Biological, and Electrical/Computer Science tracks, respectively! The cash prize will help teams cover the prototyping costs associated with developing their proof-of-concept.

This year, the participants pool was very diverse, with MBA candidates, graduate students, and non-engineering undergraduate students joining the MedTech Pitch Competition, which was exciting to see! We received positive feedback from the judges, prompting us to continue hosting entrepreneurial events to promote innovation for UCI students. We will continue to develop partnerships with local medical device companies to host such events on a much larger scale in the future!





Date	Audience	Attendance	Cost
3/2/24 9:30 AM - 4:30 PM	Undergraduate Students Graduate Students Faculty Industry Professionals	42 Undergraduate Students 3 Graduate Students 1 Faculty 7 Industry Professionals	\$1670.00

XIII.L. National BMES Kickoff

In our National BMES Kickoff, we hosted 26 students in McDonnell Douglas Engineering Auditorium where we allowed students to share what they learned from their experience pitching their medical device ideas to a panel of industry experts, professors, and entrepreneurs. For most students, this enriching experience introduced a new field (entrepreneurship) of biomedical engineering where they were able to learn more about the business side of engineering. Teams also received feedback from judges to enhance their ideas and improve upon areas of improvement, specifically business model and go-to-market strategy, both items involved in business which these students likely haven't been exposed to. In addition to recapping our biggest event of the year, we also kicked off our Spring Quarter plans of preparing students for the National BMES Design Competition. Engineering students often are instructed to follow the engineering design process and present figures, qualitative and quantitative data, and organized methods of creating products. However, something that the project coordinators wanted to emphasize was the art of "storytelling". Painting the picture of how students' medical device
ideas are the main characters in their story can better illustrate to others the purpose and relevance of their device idea. Movie analogies and generic plot diagrams were how the project team was able to emphasize the importance of not allowing judges, investors, professors, or anyone else to assume anything about the idea. Rather, explaining in explicit detail through storytelling, you leave zero room for people to assume anything and also minimal room for confusion. Overall, the feedback suggested that this event opened up the minds of the existing teams from our MedTech Pitch Competition as we gear up for the National BMES Design Competition.

Date	Audience	Attendance	Cost
3/7/24	Undergraduate	26 Undergraduate	\$0.00
6:30 PM - 7:30 PM	Students	Students	

XIII.M. National BMES Proposal Kickoff

The National BMES Prototyping and Proposal Kickoff event was hosted by the Project Coordinators of BMES at UCI to give students participating in the National BMES Student Design Competition, guidance and tips to create a successful prototype and proposal. During the event, the Project Coordinators took the time to review how the Spring Quarter will be structured and how the Project program will be utilized to help participating students create a successful prototype and proposal. Many of the teams who planned to submit a proposal to the National BMES Student Design Competition, stemmed as winners of the MedTech Pitch Competition which was hosted during the Winter Quarter. Details about the competition and how to go about the process were all presented to participating teams. There were also opportunities for students to look at previous proposals which were submitted to the National BMES Student Design Competition through UCI from previous years to understand how to go about the writing process. A timeline was provided to teams so they knew how to plan out their quarter and what future workshops to attend to create a successful product for the proposal submission. In total, there were 5 teams that signed up through this event which means there are 5 prospective teams who are looking to submit proposals for the National BMES Student Design Competition with the help and guidance of BMES at UCI and its Project Coordinators.

Date	Audience	Attendance	Cost
4/9/24	Undergraduate	12 Undergraduate	\$0.00
6:30 PM - 8:00 PM	Students	Students	

XIII.N. Proposal Check-Ins

The National BMES Proposal Check-In was hosted as a two-part event on April 23rd and May 7th of 2024 from 6:30 - 8:30 PM at Steinhaus Hall 174. The purpose of this event was to allow the teams

who are participating in the 2024 National BMES Student Design Competition to continue building out their ideas for testing and continue the process of submitting a proposal by the summer. During this time, the teams who are looking to submit a proposal, have an opportunity to schedule a 30-minute time during this event to speak to the Project Coordinators about their ideas and to get feedback regarding how to go about the prototyping iterations and any help they need on the continuation of their proposal and idea. This event was formatted in an "office hours" way to allow teams to also come in any time between 6:30-8:00 PM if they needed to speak to the Project Coordinators about their ideas. This event was mainly held to ensure that teams were on track to write their proposals and finish prototyping and testing for their idea before the Spring Quarter at UCI ends.



Date	Audience	Attendance	Cost
4/23/24	Undergraduate	15 Undergraduate	\$0.00
6:30 PM - 8:00 PM	Students	Students	
5/7/24	Undergraduate	12 Undergraduate	\$0.00
6:30 PM - 8:00 PM	Students	Students*	

XIII.O. Proposal Review Session

On May 21, 2024, BMES at UCI will host the Proposal Review Session from 6:30 - 8:30 at Steinhaus Hall 174. The purpose of this event will be to review the proposals for teams of students who are looking to participate in the National BMES Student Design Competition. By this time, it will be Week 8 out of the 10-week long Spring Quarter. Students and teams are expected to have their proof-of-concept for their prototypes and finish using BMES at UCI material within the workshop to make sure they can physically test their ideas if needed. During the event, students will have the opportunity to present their research, data collected during the testing of their prototypes and proof-of-concepts, and their progress on their proposal to the Project Coordinators. The Project Coordinators will be able to work with each team for about 30-45 minutes and give a lot of feedback about their proposals and what other tasks may need to be done to submit in time for the proposal deadline. Students will also set up a schedule to meet with Project Coordinators during the summer break so teams will be able to finish up their proposals and make them polished in time for submission.

Date	Audience	Estimated Attendance	Estimated Cost
5/21/24	Undergraduate	20 Undergraduate	\$0.00
6:30 PM - 8:00 PM	Students	Students	

XIV. National BMES Meeting

For the past four years in a row, BMES at UCI had the privilege and opportunity to attend the National BMES Meeting and our chapter has been honored to win the Societal Impact Award for two of those years and the Outstanding Chapter Award for the 2022-2023 Academic Year. By having the Medtronic Student Competition as a vital element in our project curriculum in past years, we had the honor of having teams place in the finals three years in a row. In the 2023-2024 Academic Year, we plan to guide teams with submitting project proposals and we hope that some of our project members will place in the competition. Each year, we had BMES at UCI Board Members and project members attend the event annually.

For the 2021 Annual Meeting in Orlando, a total of 9 students attended in person, and another 4 students attended virtually. The students consisted of research presenters, Medtronic Student Design Competition finalists, and Board Members who attended to accept the Societal Impact Award.

For the 2022 Annual Meeting in San Antonio, a total of 9 students attended in-person, 8 of whom were Board Members. 3 of the 9 students were project team members who placed 2nd in the Electrical and Mechanical Engineering track in the Student Design Competition. We met many other student chapters and built our network amongst students, grabbed lunch with UCI professors, and attended many special events at the conference. Many Board Members who attended presented their research, so we attended and browsed all poster presentation sessions to support our fellow Board Members and explore new research. Our chapter was able to receive and accept the Societal Impact Award as well!

For the 2023 Annual Meeting in Seattle, eight members from the BMES at UCI Chapter attended–7 board members and 1 project member. We were able to meet up with a few of the Student Chapters that we collaborated with previously, including the University of South Florida and FIU, at the meeting and chatted. We were able to attend the poster sessions to support the board members presenting and attended small group sessions of interest as well. We attended the UC Systemwide Reception and we had a blast! We also connected with the UCSD Chapter and introduced our board members to each other for future collaborations and we also obtained free merch during the raffle. We met up with a few UCI professors at the reception before leaving to grab dinner at our hotel. We were able to grab lunch with the BME Department Chair and reconnect with a few other professors at the BMES Reception. One of the board members in attendance was on Feminora, a team that won the DEBUT Competition. The attendees attended the NIH/NIBIB Lecture and NIBIB Design by Biomedical Undergraduate Teams (DEBUT) Awards Presentation to support Anushka and her team! Our President was a panelist for the Student Chapter Panel and was able to connect with local chapters (UCLA, USC, and UC Riverside) and out-of-state chapters (University of Colorado Boulder). We were honored to receive and accept our Outstanding Chapter Award Outside of meeting events, board members were able to bond by exploring Seattle. Some places we explored were Pike Place Market, downtown Seattle, Space Needle, and Starbucks Reserve. Overall, the Annual Meeting was enjoyable and rewarding, from exploring a new city to connecting with new chapters to reconnecting with professors.

In future meetings, BMES at UCI will look to further expand our network of student chapters across the country and connect with medical device and biotechnology companies in attendance. We hope to be able to bring general members with us to attend the conference. It would also be very beneficial to our members who take advantage of our Annual Industry Night, Company Informational Sessions, and Company Tours. Special sessions may also help our Project Team identify clinical needs for our future competitions. Attendees will be able to explore their interests and identify possible graduate school programs that they would like to pursue.





XV. Future Direction

XV.A. Summation of Next Year's Chapter Goals

The constant goal of BMES at UCI is to create a welcoming space for people interested in the biomedical engineering field to grow alongside like-minded students. We want to continuously promote learning more about the many pathways the field offers and help students accomplish their goals. We have achieved so much this year, but there is always room for growth and improvement. We hope to continue to learn from our past experiences and use feedback from our members to create bigger and better opportunities. Below is a list of flexible ideas and improvements for each sector that will be implemented to ensure that we expand our chapter's impact to better serve the biomedical engineering community within and beyond UCI.

Sector	Next Year's Goals
General	 Improve member retention with new ideas for events and meetings Increase graduate student involvement in BMES at UCI events or collaborative events Collaborate with other chapters to host in-person events
Project	 Increase retention of previous members (including upperclassmen) through new ideas for workshops Allow for more flexibility in mini-project ideas Directly involving upperclassmen in project teams and workshops
Mentorship	 Increasing incentives amongst mentorship groups to keep meeting, especially with their Professional mentors Expanding the network of student and professional mentors to account for the increasing number of members Working with Outreach to create a mentorship program for high school students
Industry	 Expand events to include the growing pre-med community of BME students at UCI Maintain old and create new relations with graduate students and faculty to promote open research positions Create more casual events to help students to network with local medical device companies, especially start-up companies in Orange County
Outreach	• Expand in-person school visits to the Orange County area

	 Increasing outreach to middle school and community college students in the area as part of the Jr. BME Program Working with Mentorship to create a mentorship program for high school and community college students
Social	 Increase the diversity of students in post-meeting social events Create new promotion strategies to increase the reach our club has on the BME community at UCI
Fundraising	 Increase charity events to support causes in the community around UCI Innovative fundraisers to increase general member and board member interactions

XV.B. Outline of Goal Achievement Strategy

The goal achievement strategy can be split up amongst the sectors to promote teamwork and create better events for the BMES at UCI members. The Executive Board will work with all of the Board Members to ensure that the goals are being met throughout the year. The Executive Board plans to conduct biweekly check-ins or meetings as needed with Board Members in each sector to check on their goals, events, and most importantly, their well-being. We want to prioritize promoting a healthy environment for all our Board Members, and we want to ensure that they all feel secure as an Officer of BMES at UCI. Our second priority to improve our organization is to increase the support for our members. Our strategies to achieve our goals from the Next Year's Goals are listed in the Goal Achievement Strategy Table below.

Sector	Goal Achievement Strategy
General	 One of the biggest goals for BMES at UCI would be to maintain and build relationships with our faculty, alumni, graduate students, and other BMES chapters. In order to maintain the relations we have with our UCI BME Faculty, we will have our President attend more faculty meetings and act as a liaison between our Board Members and the faculty. We aim to use this increased contact to invite faculty and more graduate students to more events to increase the involvement between them and our Members. We also plan to do so by increasing our contact with the Graduate Association of Biomedical Engineering Students (GABES). To increase this involvement, we would like to plan more casual events with faculty, graduate students, and alumni. In order to increase our contact and involvement with other student chapters,

	 we would like to strengthen our relations with the local BMES student chapters. We hope to do so online and at the National BMES Conference in order to plan in-person events for Board Members to connect, and eventually for members as well. We hope that we continue to expand the reach to other chapters in order to continue and create new friendships. Over the past few years, we have seen new members come and go. There are only a few who stay involved with BMES at UCI activities. Next year, we want to increase the retention of our members. We would like to do so by developing more supportive relations between Board and General Members as well as through novel meeting and event ideas. By becoming closer to our Members, we will be able to comfortably receive feedback about new events and improvements. We would also be able to provide resources to our peers, building a more tight-knit community in the process. These relations between General and Board Members will allow us to discover new ways for us to better serve our members.
Project	 This past year, the Mini-Projects that our Project Coordinators ideated and hosted were a huge success, and it kept our Members more engaged as they were seeing their efforts come to life. However, we would like to implement more flexibility in the Mini-Projects so that students would be more interested in the project that they are cultivating using the technical skills that they have developed through the workshops in the beginning of the year. These technical workshops (Arduino, SolidWorks, and programming) will be continued next year as our Members enjoyed these workshops over the past few years. These mini-projects and workshops can possibly lead to teams of our Members who can create amazing medical device ideas, work with faculty to develop these ideas further, and possibly compete in competitions. Working with our Faculty advisor and other faculty members will allow us to learn more about these project competitions, and we can promote these to our Members' teams. These competitions would be of interest to our upperclassmen, keeping them involved and increasing retention of our Members as well. Additionally, to keep our upperclassmen to events and promote the projects that they are working on to incite interest in underclassmen to start their own projects early. We can do so by involving the Senior Design Class through our Faculty advisor who organizes this program for all of the senior students in the BME program at UCI. These events can help promote students' projects in addition to giving them an opportunity to practice their presentations to underclassmen.
Mentorship	• Our mentorship program has continued to grow immensely since the start. We

	 want to continue to grow the program and keep the BME community tight-knit through this program. However, we would like to expand this to the community. A mentorship program with our Members and high school students will provide more one-on-one support for students in addition to our Jr. BME Program. This program will also allow our underclassmen to be more involved in a mentorship role, giving high school students input in terms of their high school experiences and how they are adapting to college life. This program would be implemented to expand our reach into the community beyond UCI to provide support to any student looking to join the biomedical engineering field. If possible, we would also like to extend this opportunity to community college students, so they can figure out whether biomedical engineering at UCI is the right program for them. At UCI, our mentorship program with increasing amounts of interested underclassmen, we hope to see it continuously grow in the next year. In order to support the mentorship program with increasing amounts of interested underclassmen, we hope to increase the reach we have to graduate students, medical students, and industry professionals to be a part of our program as Professional Mentors. If we can diversify the professional mentors in the program, we can provide our Members with mentorship groupings that are more specific to their career goals to receive more specialized, one-on-one support.
Industry	 Over the course of this year, we were able to create new professional development and networking events. However, we would like to include networking events that are more casual to lessen the intimidation our Members may feel at professional networking events. This will allow for younger students to comfortably converse with industry professionals and alumni. For all the networking events next year, including Industry Night, we hope to reach out to the biomedical engineering community in Orange County and beyond (including Los Angeles, Pomona, Riverside) to expand the number of companies who come out to network with our students at UCI. We also hope to take advantage of the UCI Industry Advisory Board established by the Department of Biomedical Engineering when planning these events and reaching out to industry professionals. The pre-med community at UCI in biomedical engineering is growing immensely. Our events in the past have been geared towards graduate school and the industry for the most part with a few pre-med representatives. However, we would like to start hosting pre-med-focused events to support our Members who are looking to combine their interests in pre-med and engineering. We would like to make our events more inclusive to the pre-med

	community for the next year and in the years to come.
Outreach	 Our outreach program has continuously grown exponentially across the past couple years, in regards to our larger outreach endeavors and our Jr. BME program. We would like to continue expanding our reach to the younger students in the Orange County area, such as middle school students. Outreach to younger students will allow for the possibility for students to understand what the field is earlier on so they can take their high school experience in the direction that they would like. When including these younger students as a part of our program, we would need to take into account the varying skill sets of our students during the workshops. We would take this into consideration along with our current students' feedback in order to create a better program for new and returning students in our Jr. BME program. This past year, we have also started to visit a few schools in person during their lunch periods to introduce the biomedical engineering field with a few of our Board Members and alumni. This has been a great success amongst the schools in Orange County that have expressed interest in working with us in the future. This will allow for us to maintain the relations we have with high school teachers and guidance counselors who we have reached out to. We would also like to host in-person field trips to UCI by working with high school faculty to show students what our campus is like and what a college experience would be like in BME. As described under the Mentorship section, we would like to expand our outreach to younger students with a mentorship program to allow for our high school students to gain one-on-one support in answering their questions and describing what the biomedical engineering experience is like at UCI. This program would be great to incite an interest in college education and potentially the biomedical engineering field amongst younger students in the Orange County area.
Social	 Over the past year, we have hosted more unique social events for our General and Board members. These events, such as the bowling social, have been a great hit, and we think continuing these creative social ideas will continue to bring together our General and Board Members closer, a goal that we want to achieve every year. Increasing the types of social events that we host will allow us to be more inclusive of all our Members' interests so we can involve as many Members as we can in our social events. We would like to use these social events as a casual and fun way to increase the relations between General and Board Members, a goal we try to improve on every year. We would like to make our social media platforms (specifically Instagram)

	more personal. Over the past few years, we have been advertising our events with flyers and details, but if we are to personalize our Instagram feed, such as adding event recaps with pictures from the event or Board takeovers on the Instagram stories, it will allow for more interaction between our Members and our Instagram account. If more Members and other BME students are continuously interacting with our Instagram feed, then we would have more reach in promoting our events to the BME community at UCI. This will also allow our Members to get to know the Board Members at a closer level, making everyone who is a part of BMES at UCI closer over the next year.
Fundraising	 The separation of fundraising from outreach will allow for more time to be put into the fundraisers that we host for BMES at UCI. In addition to raising money for our events throughout the year, we host fundraisers in order to increase our involvement and relations with General Members in a more casual setting. We would like to combine some events with our fundraisers, like the Resume Workshop at Cha for Tea we did this past year, to incentivize more students to attend. We also aim to look into more creative options and new places to host our fundraisers to keep our General and Board Members interested and engaged in the fundraising activities that we will have planned. In the past, we have done a couple fundraisers for charity. However, over the next year, we would love to give back more to the community that we live in. We would like to host these events to support the healthcare charities in addition to charities that support the well-being of people in Orange County. We have hosted a Charity Field Day multiple times in the past to involve the faculty, graduate students, and undergraduate students in a fun, casual event to play some sports and raise money for charity. We hope to continue events like this and donation drives such as the Canned Food Drive in a unique and creative way to keep the BME community at UCI involved in our efforts to support good causes.