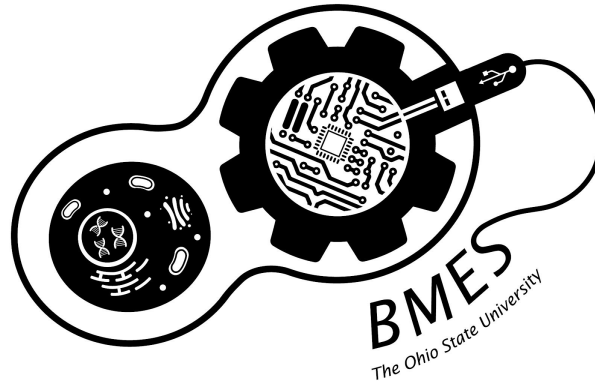


The Biomedical Engineering Society at The Ohio State University :

Chapter Development Report

2018-2019



The Ohio State University's Chapter of the Biomedical Engineering Society has grown significantly in the past few years and has become more diverse in the type of opportunities that we pursue for the benefit our members. As a society, we have provided events and opportunities for professional, academic, and personal growth for our members through the following areas: mentorship, professional development, social events, community service, and hands-on projects. One of our continuous goals as a chapter is to improve upon the previous year's accomplishments and create new initiatives for our members. In the past couple of years, the society has increased membership by 50%, forged a strong relationship with The Wexner Medical Center, May We Help and increased our mentorship program involvement. Last year was especially significant due to the launch of our new annual event titled Sculpting Your Future. Here we welcomed three talented speakers who shared their knowledge through small group interactions. Finally, we premiered our new Mental Health Initiative in collaboration with the BME department. All of our current and past initiatives serve our ultimate goal for the upcoming year which is to continue to provide events that cater to the needs of our members.

Please direct all questions about the The Biomedical Engineering Society at Ohio State's Chapter Development Report to Divya Krishnagiri.

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Dear National BMES,

The Biomedical Engineering Society at Ohio State has continued to create an environment in which members are able to say that they have expanded their network, learned something new, or made a friend. This past year, our chapter focused on the development of our new mentorship program, and premiering the first women empowerment event and Biotech Symposium as well as increasing the number of members within our chapter.

Our chapter has been working since its creation to increase our partnership with industry. This year our partnerships were furthered by the inaugural Biotech Symposium. This event featured multiple companies who brought technologies that they were working on as well as a talk by an OSU professor. This event was intended to showcase the technology that biomedical engineers create as well as educate the attendees on the R&D process. That was not the only success of this year. Our Networking Night this past fall had nine Biomedical Engineering companies in attendance, which allowed over eighty students to receive the crucial time to engage with companies in order to expand their professional network and allow them to find coveted internships, co-ops, and full time positions. In the spring, The Engineering on Healthcare: Industry and Research Symposium had notable events such as a keynote speaker from Case Western, industry panelists with diverse backgrounds, and over twenty students presenting their research.

One area of prospective improvement for our chapter is to increase the community service in which our members can participate. We currently have three forms of community engagement: participating at Physicians Free Clinic (PFC), volunteering at blood drives, and tutoring at 'Metro Early-College High School.' Although our members have done great work helping the surrounding area thus far, our chapter is looking ahead and seeking to involve our organization in the community in new and different ways. There is also difficulty maintaining involvement from members throughout the year due to interest, a lack of community, and the rigors of school. We are working hard to build a BME family by creating a more relaxed environment through our mentorship program.

An additional area of improvement is by giving our members more project experience. We will be debuting our first annual Bio-Hack in the fall. Bio-Hack will be the first biomedical focused hackathon at OSU aimed to give our members more project experience. On top of this we will be having more small weekly projects for those with limited time.

Although our chapter has areas of improvement, we have accomplished a lot in order to benefit our members. This document will show all of the details pertaining to how we accomplished our numerous events and tried to improve upon the quality that the previous years have set as the standard.

Sincerely,



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I. Administrative Report

The BMES chapter at The Ohio State University (OSU) aims to increase our general membership by 50% in this next year. In order to reach this goal, we will focus on reaching out to students who are not BME or Pre-BME. We will first make connections with the advisors of Chemical Engineering, Mechanical Engineering, and Biological Engineering. These advisors will be able to send emails and notices on our behalf encouraging the attendance and participation in BMES events. Additionally, we will form a connection with the American Institute of Chemical Engineers at OSU, the American Society of Agricultural and Biological Engineers at OSU, and any other organization that contains members interested in biomedical engineering. Through fostering a relationship with these organizations at OSU we will be able to advertise our events across multiple platforms encouraging non-BME students with an interest in BME to attend. Additionally we aim to increase the quality of our monthly general body meetings by ensuring an industry representative or professor is talking at each meeting. We will achieve this by building up our professional network through the use of outside societies such as BioOhio, an organization where individuals working in the biotech field network and socialize with each other.

I-A. Officers

1. Divya Krishnagiri: President, Krishnagiri.1@osu.edu
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2. Talmadge Gaither: President, Gaither.22@osu.edu
 - a. Duties: Oversee Operations
3. Marissa Kamenir: Internal Vice President, Kamenir.1@osu.edu
 - a. Duties: Mentorship & Social Events
4. Matt O'Donohue: External Vice President, Odonohue.2@osu.edu
 - a. Duties: Professional Development & Community Service
5. Amelia Gingras: Secretary, Gingras.12@osu.edu
 - a. Duties: Meeting Notes & Member Communication
6. Ian Rasquina: Treasurer, Rasquina.3@osu.edu
 - a. Duties: Fiscal Responsibility
7. Will Cisneros: Professional Development Chair, Cisneros.20@osu.edu
 - a. Duties: Professional Development
8. Adithya Ramaswami: Social Development Chair, Ramaswami.6@osu.edu
 - a. Duties: Social Events
9. Mukul Govande: Engineer's Council Representative, Govande.1@osu.edu
 - a. Duties: Funding & Utility
10. Teddy Renner: Engineer's Council Representative, Renner.187@osu.edu
 - a. Duties: Funding & Utility
11. Marissa Ruzga: Faculty Liaison, Ruzga.1@osu.edu
 - a. Duties: Communicating With Faculty
12. Megan Tepe: Freshman Representative, Tepe.47@osu.edu
 - a. Duties: Freshman Liaison

I-B. Membership

All in-major/accepted members of the Biomedical Engineering Society at Ohio State Student Chapter are also National BMES Members.

- Undergraduate students: * (236 in major, and 290 pre-BME); Members: 90/526 – 17%
 - o Note: Pre-BME's are required to apply to the BME major following their first year, in which only 80 can be accepted

I-C. General Body Meeting Information

Table 1: General Body Meetings & Speaker Series

Date	Attendance	Name (Speaker) - Description
8/23/2018	152	Fall Kickoff Meeting (Talmadge Gaither, Divya Krishnagiri, Dr. Mark Ruegsegger, Dr. Alexis Ortiz-Rosario) – Welcome and outline of semester schedule for potential members
10/4/2018	44	October General Body Meeting (Talmadge Gaither, Divya Krishnagiri, Rob Day)- Updates, upcoming events, and Rob Day, CEO of Lab-Ally, spoke about his company
11/1/2018	30	November General Body Meeting (Talmadge Gaither, Divya Krishnagiri, Caroline Crisafulli)-Updates, upcoming events, and Andrew Blake from Minimally Invasive Devices spoke about innovations in their company and recruited.
1/10/2019	52	January General Body Meeting (Talmadge Gaither, Divya Krishnagiri, Robert Chastain)- Updates, upcoming events, and Robert Chastain from TS Tech spoke about careers within his company.
2/7/2019	44	February General Body Meeting (Talmadge Gaither, Divya Krishnagiri)-Updates, upcoming events, and officer elections.
3/7/2019	11	March General Body Meeting (Speaker from Biotronik)-Updates, upcoming events, and a Biotronik representative spoke about the company and possible career paths.
4/11/2019	8	April General Body Meeting (Divya Krishnagiri)- Updates, upcoming events, and a town hall was held allowing our members to give BMES and the BME department feedback.

I-D. Officer Meeting Information

Table 2: Officer Meetings

Date	Agenda
8/29/2018	Finalize plans for Networking Night and Involvement Fair. Begin GB meeting planning and freshman event planning, beginning of year logistics and the first social
9/9/2018	Beginning of year logistics and the first social
9/23/2018	Plan for recruiting members and planning out mentorship
10/7/2018	Planning social events, mentorship and professional development events.
10/21/2018	Planning Med School 101 and the November/December GB meetings.
11/4/2018	Planning Coffee & Donuts and Engineering Healthcare: Industry and Research Symposium
11/18/2018	Officer roles and planning Forefront of BME and Donatos social.
12/2/2018	Planning the February GB Meeting, officer transition, elections and mentorship
1/13/2019	Election Q&A, Schottenstein Cleanup
1/27/2019	Industry Visits, Mad River Social, Engineering in Healthcare: Industry and Research Symposium
2/10/2019	Officer transitions, STEM in Med Social, Research Panel
2/24/2019	March GB meeting, Biotech Symposium
3/18/2019	Cory Application Review, Didn't get into BME event
4/7/2019	Officer transitions, summer planning, April GB Meeting
4/21/2019	Summer planning and final Coffee & Donuts

II. Treasury Report

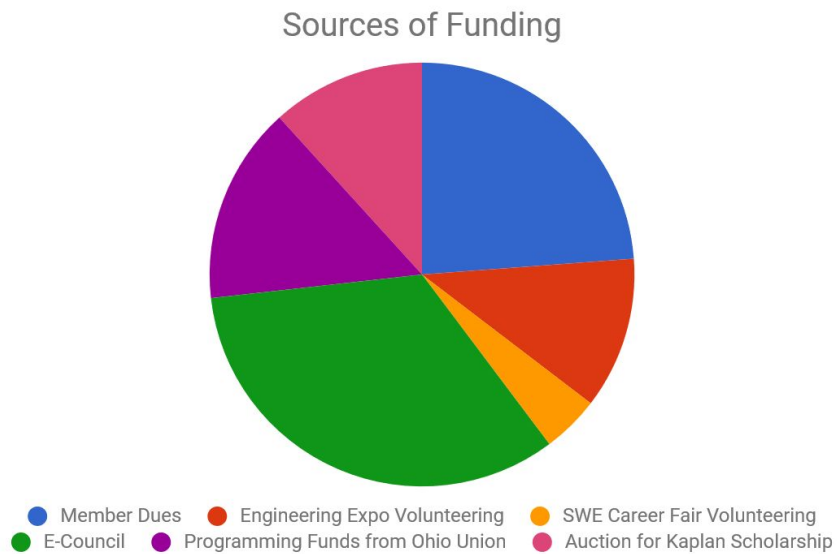
Please Note: The items listed below include funding and expenditures between 6/1/18 and 5/15/19.

II-A. Sources of Funding

Table 4: Funding for the 2018-2019 School Year

Source	Total
Member Dues	\$2,313.76
Engineering Expo Volunteering	\$1,125.80
SWE Career Fair Volunteering	\$425.00
E-Council	\$3,251.46
Programming Funds from Ohio Union	\$1,463.02
Auction for Kaplan Scholarship	\$1,139.19
TOTAL	\$9,718.23

Figure 1: Sources of Funding for the 2018-2019 School year

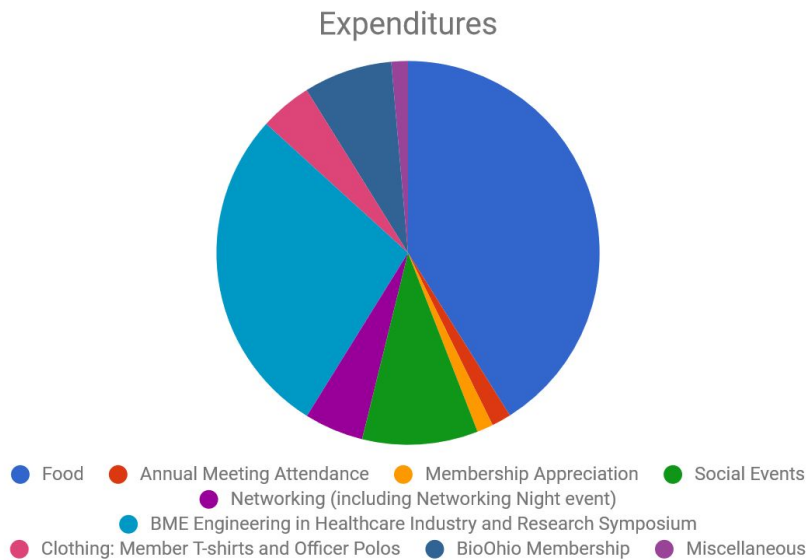


II-B. Expenses

Table 5: Expenditures for 2018-2019 School Year

Source	Total
Food	\$3,707.50
Annual Meeting Attendance	\$147.90
Membership Appreciation	\$123.83
Social Events	\$881.54
Networking (including Networking Night event)	\$450.59
BME Engineering in Healthcare Industry and Research Symposium	\$2,516.80
Clothing: Member T-shirts and Officer Polos	\$396.14
BioOhio Membership	\$675.00
Miscellaneous	\$126.50
TOTAL	\$9,025.80

Figure 2: Expenditures for the 2018-2019 School Year



III. Chapter Activities

III-A. Industry and Professional Development Activities (see CARS)

BMES has had a record breaking year in our professional development division but we still have room for improvement. This upcoming year BMES will focus on maintaining existing company contacts, creating new ones through LinkedIn and BioOhio, and fostering a better relationship with OSU. BMES will be partnering with BioOhio to bring our members and faculty of the BME department a networking social. BMES has been able to give our members tours of various OSU medical departments but we would like to connect with more OSU departments such as Surgery, Clinical Engineering, and Neurology. In addition, within this upcoming school year BMES will work to build relationships with Nationwide Children's Hospital and Mt. Caramel Health to provide more shadowing and hands on experience. Finally, BMES will be implementing a projects division. The goal for this projects division is to give our members hands on projects experience. We will be cultivating their hands on experience through Bio-Hack, the first annual BME focused hackathon.

Please refer to CARS Forms for Industry and Professional Development Activities

III-B. Social Activities

Social events provide an integral environment for new and old BMES members and officers to interact and build foundational connections. This year, our goal was to continue to increase attendance at social events and also expand the BMES current social media presence to a new platform: Instagram. Publicizing events using Instagram and sharing pictures of members at events will be a key strategy to create a consistent BMES presence on social media, and continue to attract new membership. The annual Social Kick-Off was a great event to build connections and friendships between new and old members. This will also be the key event for BMES to gain a strong platform of Instagram followers in the future from the beginning of the year, and help students realize the opportunities that come with being a part of BMES.

Social Kick-Off	9/13/18, 6:30 pm Siebert Lawn, South Campus	All BME Students; 35 attendees
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This event was aimed to introduce officers to new and potential BMES members. Pizza was provided and there were activities such as yard games and ultimate frisbee. Overall, the event helped establish welcoming mindsets and friendships among old and new members and officers. As a result, a GroupMe was created which helped to further establish a network of BMES people.

Fall Extravaganza	10/23/18, 5:00 pm Dave Griner Room at the RPAC	All BME Students; 10-15 attendees
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Students had the opportunity to decorate pumpkins, drink hot chocolate and talk. This event provided a great break from school work and time for everyone to socialize and get to know each other away from an academic environment.

BMES Office Hours	11/04/18, 5:00-7:00 pm Houston House Grove Room	All BMES members; 10 attendees
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Open office hours were provided for BMES members to stop by and ask questions and receive valuable input from upperclassmen on a various range of BME related topics, especially scheduling and specific courses. In addition, mentors and officers present were able to utilize the time for studying, proving the event to be valuable for all BMES members.

Volleyball	11/27/18, 6:00pm RPAC Open Gym	All BME Students; 6 attendees
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BMES members were invited to bring friends and join in a friendly game of volleyball. The event helped foster bonding and teamwork, and proved to be great exercise too.

Yoga	12/4/18, 7:15 pm Park-Stradley Residence 10th Floor Sky Lounge	All BME students; 10 attendees
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BMES members were invited to de-stress before finals with calming yoga accompanied by a landscape view of campus and downtown Columbus.

BMES Fall Reading Day Donuts & Coffee	12/6/18, 9:00am-3:00pm RPAC Meeting Rooms 1 and 2	All BME students; 46 attendees
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Undergraduate students gathered for a break from studying for finals. The event brought together students from the same classes in one place, offering a chance for them to study together. The event was also where the auction for the Kaplan scholarship took place. This event gave students the perfect opportunity to unwind before the mental stress of finals.

Cake Decorating	1/17/19, 7:00 pm RPAC Meeting Room 1	BMES Members; 10 attendees
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With cakes baked and kindly provided by a BMES officer, members and officers were able to bond and compete in a friendly cake decorating competition. Everyone socialized and enjoyed eating the cakes at the end.

BMES Ski Trip	2/15/19, 6:00 pm Mad River Mountain	All BME Students; 9 attendees
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The annual OSU BMES ski trip consisted of an evening of skiing and snowboarding at a local ski resort. Members of all experience levels attended, and taught each other different skills. This bonding trip allowed members to unwind and relax with snowboarding and skiing.

Movie Night	3/27/19, 6:00 pm Ohio Union	All BME Students; 2 attendees
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All students were invited to join in watching a free screening of Spider-Verse put on by OUAB. Attendance was thought to be low due to a high amount of general public having already watched the popular movie, as well as midterms.

BMES ArchE Week Scavenger Hunt	4/6/19, 10:00am-4:00pm The Oval, by Thompson Library	Everyone: 7 BMES volunteers, 30 participants
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As a part of OSU’s Architecture and Engineering week, BMES held a scavenger hunt for the public to participate in. The hunt gave hints for 17 landmarks and locations on campus, and awarded those that were able to visit and photograph at all of these places prizes. BMES mentorship participants were encouraged to participate as and complete the hunt as teams.

BMES Spring Reading Day Donuts & Coffee	4/23/19, 12:00pm-4:00pm Bevis 245	All BME students; 32 attendees
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Similar to the fall event, this event gave students the opportunity to take a break from studying for finals. Additionally, it motivated students in the same classes to meet up and study together. The provided donuts and coffee made studying more pleasurable. An auction for a Kaplan scholarship, valued at \$2500 worth in Kaplan test-preparation materials, was also held during this time.

III-C. Inter-chapter Activities

BMES connects with other BMES chapters at the Annual Meeting. Meeting other chapters allows us to learn about their successes and utilize their strategies to help our own chapter become even more successful in our goals. Through these activities, we strive to discover how to leave a greater impact on our chapter members and our greater community.

Annual Meeting Networking, Socializing & Sharing of Best Practices	10/17/18 to 10/20/18 Atlanta, Georgia	BMES members in attendance of Annual Meeting
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Members of BMES at Ohio State attending the BMES Annual Meeting sought to improve their academic and professional network through speaking with professors and researchers at breakout informational sessions; networking with BMES student chapter members at the BMES BASH reception; and guiding interested student chapters in developing and maintaining successful industry relationships at the best practices meeting.

Undergraduate members in attendance were given insight into graduate school possibilities, and all members were able to exchange ideas of how to run a better, more focused chapter in order to enhance our members’ experience in BMES. Specific lectures and workshops attended may be found in Section IV.

III-D. Outreach Activities

BMES as OSU is very diligent and dedicated to spreading STEM education to middle and high school students. This year was the premier of our partnership with a local non-profit,

May We Help, geared towards designing and creating unique custom solutions for individuals with special needs to engage in and pursue their passions. The OSU chapter took up several of their projects.

As of this year, we have sustained a three-year relationship with Metro Early College High School where we previously provided tutoring on a weekly basis; this year, we have decided to hold a fewer number of larger, more impactful events rather than following the weekly schedule again. We also have a three year relationship with Physicians Free Clinic, partnering with their competitive volunteer program; not only does this provide our members with the ability to shadow and work with doctors, but the doctors get free assistance in return. Within this next year BMES will hold more outreach events with Women in Engineering and the National Society of Black Engineers to foster a better relationship with the community.

Physicians Free Clinic	Ongoing Columbus Public Health	All BMES members; 12 completed training
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On Monday evenings, members are able to volunteer at a local free clinic. This outreach opportunity gives students interested in gaining clinical experience (especially pre-med students) the ability to give back to the community in the field that they wish to pursue. The chapter's partnership with the clinic enhances the quality of care at the clinic as well as develops the chapter members' experience in the clinical setting. For following years, we will open up applications and training for this program earlier in the year, in order to ensure the availability of as many positions as we need for our interested members.

May We Help (Non-Profit Organization)	Ongoing May We Help	All BMES members; 19 total participants
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Members of BMES volunteered to take on two of May We Help's projects this year. The first project, The M.A.P. Project, consisted of assisting a person living with cerebral palsy to mop by himself effectively. Given a few of his ideas, members tasked with implement the ideas into a sound, usable product. The second project, The Adaptive Biomedical Device Project, was the development of a custom device to help a person with a slightly shortened arm do yoga. Both projects were aimed at making a huge difference in the lives of a specifically one person, however the potential for a universal product is present.

Members would work and hammer out ideas on how to design, produce and tweak the device to perform the desired tasks, and they met weekly to discuss roadblocks and helpful insight. This experience gave them invaluable experience into the world of product design and engineering product development. Perhaps just as important, it allowed members to develop a sense of empathy towards the people they are helping. No matter what a biomedical engineer ends up pursuing, empathy and an appreciation of who their work affects is monumental in creating an impassioned career, and gives meaning to otherwise feelingless work.

Metro Early College High School Tutoring	Ongoing Metro High School	All BMES members; 8 involved members
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BMES members were able to give back to local high school students through tutoring math and science classes. Topics covered included calculus, biology, chemistry, and physics. They inspired these students with possibilities after high school and the field of biomedical engineering.

<p align="center">Southwest Licking Local Schools Middle School Campus BME Day</p>	<p align="center">11/27/18, 10:00am Bevis Hall</p>	<p align="center">All BMES members; 13 involved members</p>
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The OSU chapter invited the middle schoolers to campus for a day of fun, STEM-related activities and learning about BME. Chapter members presented several real biomedical engineering projects and demonstrations to the Metro High students. These projects included building a pizza box circuit and a Do-It-Yourself ECG device, while the demonstrations put on by chapter members included the mechanics of snapping a chicken bone, strawberry DNA extraction and ultrasound testing. Though designed to be completed in under an hour, these projects were involved and required critical thinking for completion, and the demos had a lot of audience interaction. Members gave the students the tools they needed to develop a methodical, problem-solving mindset, and gained experience as instructors and advisors. More importantly, we opened a window to these students to see what possibilities BME—and engineering in general—could hold for them.

III-E. Mentoring Activities

BMES has one of the most successful mentorship programs on the Ohio State campus. This was the second year we reorganized mentorship teams to consist of upper and underclassmen, however this year the program was designed to create a more intimate mentorship experience for those involved. Last year, officially 101 members participated in our mentorship program: however, many of the mentors and mentees were largely inactive and provided no real benefit to the program. This year, as a result of a slightly more in-depth and involved mentor and mentee selection process, the total number of participants was 41 members. This smaller mentor/mentee ratio provided a more personal and streamlined process, more active mentorship experience, and boosted the enthusiasm in the program as a whole as well. We found that the group dynamic of the mentorship teams was more effective than the one-on-one style from previous years, so we will continue creating teams for next year. However, as the year progressed, there was a gradual decline in enthusiasm from mentors, and subsequently their mentees. For the future years, we plan to keep in regular contact with mentors and mentees to ensure the best experience possible.

At the beginning of the year, a mentorship committee was formed, assisting the Internal Vice President plan and execute mentorship events. There were three members of this team, and throughout the year they were able to learn and develop coordination, time management, and leadership skills.

This year, we implemented the distribution of “Mentorship Points” to the mentorship teams, which could be earned by completing mentorship-related activities throughout the semester, such as attending mentorship events and team bonding experiences. In order to bolster retention and interest in mentorship, we also allocated a monetary prize for the team with the greatest amount of mentorship points at the end of both semesters. This monetary prize, however, yielded minimal impact, so the allocated money will instead be put towards other methods of member retention.

Fall Mentorship Kickoff	8/30/18, 7:00pm Blackburn Victory Room	Interested mentors and mentees; 108 attended
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This was the first mentoring event of the academic year and it explained the importance of mentorship, the potential benefits for both the mentors and mentees, and provided a medium for new students to meet people. The underclassmen met face-to-face with mentors in a “speed-dating” style event to evaluate under whom they would gain the most of their mentorship experience. At the end of the event, the mentees chose the mentor of their choice and teams were created, with four to five mentees per mentor.

Mentorship Marshmallow Tower Competition	10/3/2018, 6pm Lazenby 021	Interested mentors and mentees; 38 attended
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As this was the first mentorship team-based event, a team building activity was planned. Each team would work together against the other teams, in a competition to build the tallest tower out of marshmallows. A sense of camaraderie was developed in the teams, and an extra incentive of participating in future events was formed in the shape of healthy, friendly rivalries between teams.

The main purpose was not only to make the mentors and mentees more familiar and comfortable with each other, but also to empassion the teams into further participation in fun, inclusive, hands-on events planned for the rest of the year.

Fall Extravaganza	10/23/18, 5:00 pm Dave Griner Room at the RPAC	All BME Students; 10-15 attendees
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Mentorship teams worked together to decorate a pumpkin(s) as talked about various subjects, including life as a BME student and the mentee’s first few months of college in general. The teams worked to enter their pumpkins into a contest, again creating a sense of togetherness towards a common goal. Socializing over hot chocolate and other fall-themed desserts provided a much-needed break from midterms, and they left mentally recharged and ready to take on the rest of their studies.

Study Brunch	11/18/18, 11am Enarson Classroom 202	Interested mentors and mentees; 17 attended
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Team members gathered in the midst of their midterm studies once again for a pleasant brunch, to bringing their homework and studies with them. This study session gave members an environment conducive to learning, with the other students silently and passively encouraging an atmosphere for focused work. Mentees could call on each other or their mentors for tutoring or help with the classes the mentors had already taken.

ECG Project	11/26/18, 5:00pm Bevis Hall, 0048	All interested members; 52 attended
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A member of the BME faculty led students in making a do-it-yourself miniature ECG, functioning similarly to the real device in its ability to detect electrical activity in the brain.

Participants and mentorship teams worked together to gain this hands-on experience, applicable as a real-world skill to detect potential problems with brain cell communication. Participants also gained further experience in an area of BME they may not have previously explored.

Spring Mentorship Kickoff	1/11/18, 6:00pm Hitchcock 031	Interested mentors and mentees; 52 attended
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As the first event of the spring semester, this meeting sought to reunite mentors and mentees after winter break. Mentors and mentees in attendance chatted with one another all while decorating cakes. They brought not only dessert to the table, but also new ideas for team-building and ways that the teams could have a greater impact on their larger communities. The meeting also served to update attendees about upcoming BMES and volunteering events. At the end, of the event, a forum was held to gather feedback about the previous semester's mentorship experience. Mentors and mentees generally liked the competitive aspects of some events, but also stated that they wished to have events where the teams could work together towards a greater goal.

Mentorship Tye-Dye Event	2/5/19, 6:00pm Lazenby 021	Interested mentors and mentees; 8 attended
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This event served as a opportunity for teams to work on individual tye-dyed T-shirts together, sharing ideas with each other on how to achieve certain patterns and shapes. Participants socialized in a less team-centric atmosphere geared towards creative expression rather than competition. The curriculum for engineering students at Ohio State especially lacks outlets to release creativity, so this event served as stress relief and as a channel for creativity.

Complementary Majors & Minors for the BME Major	2/7/19, 6:00pm Enarson Classroom 223	Interested mentors and mentees; 6 attended
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This event was held for our members considering adding a minor or double major to their education. Various students presented what minor they are pursuing, why they chose that minor, and how it complements their BME degree.

Medical School Panel	2/19/18, 6pm Enarson Classroom 226	Interested mentors and mentees; 8 attended
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This event was for pre-medical students who had questions regarding medical school. One BME seniors who were accepted to medical school, an OSU BME Alumnus currently at the OSU College of Medicine, and an MD/PhD student pursuing a PhD in BME spoke about their experience with the medical school application process, as well as what they went through and their opinion on medical school.

Grad School Panel	2/26/18, 6pm Enarson Classroom 226	Interested mentors and mentees; 7 attended
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This event was a panel style event where current graduate students in the BME program at OSU and seniors who were planning on attending graduate school next year were available to share their experiences and answer any questions.

BME Application Walkthrough	3/6/18, 6:00pm, Enarson Classroom 226	Primarily freshmen; 51 attended
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Catering to freshman pre-majors, this meeting recruited BME academic advisor Cory Matyas to inform students of the format of the application, including short answer and essay questions, tips for producing a strong application, and the average requirements for admission as well as weight of grades versus application content in influencing decisions. Additionally, she explained to students the timeline for notification and the steps to take after receiving the admission decision.

Ice Cream Social	4/9/19, 6:00pm The Oval, by Thompson Library	All BMES members, 19 attended
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To close the mentorship and social events for the year, an ice cream social was held. Mentors answered questions about finals, summer plans and opportunities, what comes next and what to expect after the first year in BME.

BME Application Review	4/12/18, 6:00pm, Hitchcock 031	Primarily freshmen; 26 attended
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Catering to freshman pre-majors, this meeting gave them the opportunity to meet with upperclass student mentors to review and discuss their responses to the essay questions on the BME major application.

III-F. Other Initiatives

BMES prides itself on ensuring that our members have the opportunity to meet and hear from professionals in the field, improve on professional skills, and the mentoring of younger members. Our activities focus on areas that assist members gain a better understanding of course work and work on their future career path. Every year BMES holds events such as the Spring Domain Panel to educate our members on the opportunities within the major. In addition, we foster a relationship between our members and the faculty through our research panels. To ensure that BMES members get the most out of OSU's career fairs, BMES prepares them with resume reviews and career fair prep events.

Involvement Fair	8/19/18, 5:00pm, The Oval	All engineering, 200 approached
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The officers of The Biomedical Engineering Society at Ohio State hosted a table to recruit new members to our chapter. Students were given the opportunity to look at any club or organization available on campus. The officers answered any questions about BME and BMES, while getting contact information to invite the students to the kick-off meeting for the semester.

Career Fair Prep	9/20/18, 6:00pm Hitchcock 031	All BMES members; 50 attended
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This event was for students currently in this course to prepare for the upcoming Engineering Expo two day career fair. Tips and advice about how to navigate the fair, prepare, create and practice elevator speeches, and interview strategies. A resume peer review was also held to provide feedback for members.

Research Panel(1)	9/6/18, 6:00pm Hitchcock Hall 031	All BMES members; 49 attended
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BMES invited professors that conduct research in biomedical engineering or related fields to discuss the work that they do and how undergraduate students can get involved in research. This event targeted students seeking a research position or desire to learn more about the variety of research in many BME domains conducted at Ohio State. Following the panel, a breakout session for students to talk to the professors that interested them was held.

Domain Panel	10/9/17, 6:00pm Enarson Classroom 243	All BMES members; 40 attended
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This was an event where upperclassmen, who have already taken at least one of the domain courses offered in the spring semester by the Department of Biomedical Engineering, shared their experiences and gave insight about course content, difficulty, expectations, and professors. The target audience for this event were upperclassmen planning to take a domain course in the spring and underclassmen who would like to learn more about the courses offered in the BME program. Additionally, a professor at OSU spoke about the different domains offered in this major and how best to pick the domains you want to take.

Grad School 101	10/10/17, 6:00pm Enarson Classroom 243	All BMES members; 26 attended
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This program was led by the College of Engineering Assistant Dean of Graduate Programs and BME Faculty Dr. Stiner-Jones. She walked through what graduate school is like as a student and how to become a competitive applicant. This program was informative for those interested in pursuing a higher degree, as they learned more about the application process and the necessary skills to succeed.

BME Curriculum and Your Goals	11/9/17, 6:00pm, Hitchcock 031	All BMES members; 28 attended
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At this event, mentors presented information about all the classes in our curriculum, such as prerequisites, difficulty level, professors, and course topics. Additionally, based off of student interest topics, specific courses or opportunities were shared. This event was most beneficial to freshmen and sophomores, but all were encouraged to come.

Research Panel(2)	2/14/18, 6:00pm Scott Labs 004	All BMES members; 19 attended
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BMES invited professors that conduct research in biomedical engineering or related fields to discuss the work that they do and how undergraduate students can get involved in research. This

event targeted students seeking a summer research position or desire to learn more about the variety of research in many BME domains conducted at Ohio State. Following the panel, a breakout session for students to talk to the professors that interested them was held.

STEM in Medicine and BMES panel	2/28/19, 5:00pm-8:00pm, BRT 115	All BMES members; 25 attended
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BMES collaborated with the club STEM in medicine to hold a medical student panel. There were 6 medical students answering questions about how to get into medical school, what to do in undergrad to prepare for medical school, how to prepare for the MCAT, and everything in between. This event gave our members a good chance to pick these med student's brains and see how they got into medical school. Following the panel, a breakout session for students to talk to the medical students that interested them was held.

Sculpting Your Future: Women Empowerment Event	3/30/19, 8:30pm-1:00pm Nosker House: Burgee Room	All BMES members; 30 attended
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BMES held the first ever Sculpting Your future Women's empowerment event on March 30th in Nosker House where we welcomed three talented speakers who shared their knowledge through small group interactions. The impactful keynote speaker Dr. Lisa Whitty Bradley provided insight into her experiences as a physician and exposed attendees to ethical dilemmas that she experienced with patients and fellow physicians. Additionally, we had two breakout sessions focusing on Communicating with Influence and Supporting Your Co-Workers with speakers Dr. Newton and Ms. Mason. These two speakers worked in collaboration with Dr. Whitty Bradley to create a meaningful experience for all in attendance.

Minors Event	4/2/19, 6:00pm LAzenby 021	All BMES members; 19 attended
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BMES invited current students with minors other than BME to speak about how their minors has helped them in their professional life. These panelists answered questions about the minor coursework and its relevance. Along with panelists was a presentation detailing the most popular minors with BME and the benefits of each one. Following the panel, a breakout session for students to talk to the panelists that interested them was held.

IV. National BMES Meeting

BMES at OSU will continue to bring a strong member body at the national meeting. We aim to bring at least 50% of the executive board as well as any other members that want to attend. Through this BMES has been able to reap the benefits of the national meeting.

IV-A. Attendance

Table 5: Graduate Students and Post-Docs in Attendance

First Name	Last Name	Email (Lastname.#@Osu.edu)
Megan	Heitkemper	Heitkemper.2@osu.edu
Katherine	Lakstins	Lakstins.1@osu.edu
Yixiao	Cui	Cui.351@osu.edu
Ayush	Arpit Garg	Garg.80@osu.edu
Ye	Niu	Niu.143@osu.edu
Hoda	Hatoum	Hatoum.9@osu.edu
Shelley	Gooden	Gooden.52@osu.edu
Dorma	Flemister	Flemister.10@osu.edu
Akshar	Patel	Patel.1785@osu.edu
Bharat	Kumar	Kumar.643@osu.edu
Samuel	Croarkin	Croarkin.2@osu.edu
Lin	Qi	Qi.217@osu.edu
Jennifer	Malik	Malik.87@osu.edu
Tricia	Oyster	Oyster.23@osu.edu
Yevgeniy	Gladkiy	Gladkiy.1@osu.edu

Table 6: Undergraduate Students in Attendance

First Name	Last Name	Email (Lastname.#@Osu.edu)
Matthew	O'Donohue	odonohue.2@osu.edu

Will	Cisneros	Cisneros.20@osu.edu
Talmadge	Gaither	Gaither.22@osu.edu
Marissa	Ruzga	Ruzga.1@osu.edu
Divya	Krishnagiri	Krishnagiri.1@osu.edu
Thomas	Esber	Esber.22@osu.edu
Hanyang	Huang	Huang.2129@osu.edu
Weston	Clifford	Clifford.155@osu.edu

Table 7: Faculty and Staff in Attendance

First Name	Last Name	Email
Rizwan	Ahmad	Ahmad.46@osu.edu
Rita	Alevriadou	Alevriadou.1@osu.edu
Steve	Crissinger	Crissinger.15@osu.edu
Daniel	Gallego-Perez	Gallegoperez.1@osu.edu
Samir	Ghadiali	Ghadiali.1@osu.edu
Kirsten	Gibbons	Gibbons.40@osu.edu
Jada	Harmon	Harmon.105@osu.edu
Richard	Hart	Hart.322@osu.edu
Natalia	Higuita Castro	Higuita-Castro.1@osu.edu
Jennifer	Leight	Leight.1@osu.edu
Alan	Litsky	Litsky.1@osu.edu
Tanya	Nocera	Nocera.15@osu.edu
Alexis	Ortiz-Rosario	Ortiz-Rosario.1@osu.edu
Matthew	Reilly	Reilly.194@osu.edu
Mark	Ruegsegger	Ruegsegger.1@osu.edu

Sai	Veeraraghavan	Veeraraghavan.12@osu.edu
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IV-B. Participation

Student/Chapter workshops and lectures attended by members

- Celebration in Minorities in BME Luncheon
- BMES Undergraduate Student Design Competition
- Women in BME Luncheon
- BMES Student Chapter: Student Chapter Best Practices
- Advanced Biomanufacturing
- Product Development based on FDA Medical Device Classification
- BME Careers in Industry I and II
- BME Careers in Academia
- Marketing Yourself: Tips for a Successful Job Search
- The Path to Graduate School
- Advanced Biomanufacturing Session II: Advanced Tissue Biofabrication
- Engineering Solutions to Health Care Disparities
- Scientific Advancement in the Biomechanics of Prosthetic Heart Valves
- Application of Two Dimensional Materials in Healthcare
- NIH Funding Panel Session
- BMES Dessert Bash
- Vascular Mechanobiology and Nanotherapeutic

V. Future Directions

V-A. New Officer Contact Information

1. Divya Krishnagiri: President, Krishnagiri.1@osu.edu
 - a. Duties: Oversee Operations
2. Connor Neifert: Internal Vice President, Neifert.4@osu.edu
 - a. Duties: Mentorship & Social Events
3. Mukul Govande: External Vice President, Govande.1@osu.edu
 - a. Duties: Professional Development & Community Service
4. Megan Tepe: Secretary, Tepe.47@osu.edu
 - a. Duties: Meeting Notes & Member Communication
5. Ian Rasquina: Treasurer, Rasquina.3@osu.edu
 - a. Duties: Fiscal Responsibility
6. Marissa Ruzga: Professional Development Chair, Ruzga.1@osu.edu
 - a. Duties: Professional Development
7. Ada Kanapskyte: Social Development Chair, Kanapskyte.1@osu.edu
 - a. Duties: Social Events
8. Alex McCullough: Engineer's Council Representative, McCullough.308@osu.edu
 - a. Duties: Funding & Utility
9. Naji Chaar: Faculty Liaison, Chaar.2@osu.edu
 - a. Duties: Communicating With Faculty

V-B. Summer 2018 Meetings

Table 8: Summer 2018 Meetings

Date & Time	Agenda
6/2/19 3:00 pm	Networking Night Reservation, National Meeting Attendance
6/30/19 3:00 pm	Networking Night Logistics Planning, National Meeting Logistics, Involvement fair changes, Social event changes
7/28/19 3:00 pm	Updates on progress from Networking Night and new ideas
8/17/19 4:00 pm	Set-up Involvement Fair

V-C. Looking Ahead

BMES has excelled in many areas this year. Most notably, we have exponentially increased participation in mentorship. By switching from a one-on-one mentor/mentee relationship to a mentorship group consisting of upper and underclassmen we have incentivized more people to join. In addition to the mentorship groups we have also added a financial prize awarded at the end of the year to the most active group. Even with this addition we still saw dwindling interest towards the end of the year. In light of that, this upcoming year we will be offering an incentive for attending our meetings. Similar to a punch card, every time a member attends a meeting they will receive a certain number of points. These points can then be redeemed for prizes. We have also increased general membership by 50% over the last two years and plan to further increase membership this upcoming year. We will focus our efforts on reaching out to students in other majors who are interested in aspects of biomedical engineering and can benefit from our events. By doing so we will diversify the majors within BMES and increase our general membership. An area that BMES has struggled with in the past is in fostering a member community. We have had an increase in attendance for our social events but it still dwindles to 2-3 members by the end of each semester. In order to create this community we will firstly increase our social media presence. Our social media will include member/board shoutouts, announcements of events, and general posts about the organization. The overarching goal of this initiative is to make BMES, and its officers, seem more approachable. It is also to encourage members to attend events by giving them a chance to be featured on our social media. In addition to this, will we revamp our member GroupMe to create a space where members can talk to and get to know each other. We will also create a more diverse set of social events including mini golf, bowling, and movies. The combination of all of these changes will increase the quantity and quality of our member community. This past year BMES has excelled in professional development. Our annual Networking Night was a success with eleven companies in attendance and approximately eighty people in attendance. We also hosted our 3rd annual Engineering in Healthcare: Industry and Research Symposium. This event integrated an industry panel, graduate student panel, networking session, and a poster session making it a successful end to the year. We also had a record year with industry visits and department visits. Next year we hope to foster a relationship with the Surgical Department at OSU to allow our members to shadow more surgeons and doctors. We will also work to make connections within the clinical engineering departments at the Wexner Medical Center (OSU's research hospital) and Nationwide Children's Hospital so that our members can shadow and learn from these engineers. The Biomedical Engineering department at OSU has never provided members with hands-on project experience but we have filled the void with our projects division. This next year we will implement our Industry Development Series. This series consists of events that teach our students a specific skill or a project that teaches more than one skills. We will teach basic

circuitry, coding, imaging, and microfluidics. In addition to this series we are introducing semester long projects. We plan on collaborating with MayWeHelp, an organization that creates personal devices for those with disabilities, and various hospitals to give our members a project that they can work on for the semester. Through our projects division BMES will give our members skills and experiences that they will not get anywhere else. We will also be increasing the diversity of our organization by continuing with our Sculpting your Future: Women Empowerment event. Finally, we will be debuting our mental health initiative. In collaboration with BMEGSA we will be offering distressing events, coping strategies and other events to help increase awareness of mental illnesses. With a dedicated and experienced executive board and the desire to better the college experience for our members, BMES at OSU is poised for a record breaking and successful year.