Student Chapter Activities Playbook

The Role of this Playbook

The Biomedical Engineering Society’s student chapters are the foundation for our society, uniting and promoting the future of the biomedical engineering profession. Each chapter is encouraged to submit an annual Chapter Development Report and based on the merits of their fundraising activities, inter-chapter events, mentoring workshops, or programs involving their community or local industry, may be selected for a Student Chapter award for outstanding efforts.

The Society is aware that many newer chapters struggle to think of, plan, or execute events to the level of some of the Societies older chapters, and have begun this living compendium of prior successful chapter activities to help those newer chapters increase their benefits to their student members.

This is intended to be a living document and as such we welcome any additions your chapter wishes to provide. The Society will update the Student Chapter Activities Playbook every summer after the submission of the prior year’s Chapter Development Reports.

We intend to have several working sections, and if you have questions about any activity in any section please email Ryan@bmes.org to be put in contact with the organizing chapter for clarification.

Special thanks given to the members of the Student Affairs Subcommittee and to Kyle Jacobs for assisting with the creation of this document.

SECTION 1: Fundraising Activities and Programs
SECTION 2: Industry Activities and Programs
SECTION 3: Mentorship Activities and Programs
SECTION 4: Inter-Chapter Activities and Programs
SECTION 5: Community Outreach Activities and Programs
SECTION 6: Social Activities and Programs, marked Other
SECTION 1: Fundraising Activities and Programs

Fundraising is an integral part of your student chapters success; without driving and increasing funds throughout the year you’ll be unable to host as many programmatic workshops and activities as your members would like. Fundraising deepens your coffers while simultaneously bringing your chapter together, through shared events.

One way to fundraise is to partner with a local restaurant, bar, ice cream parlor, bowling alley, etc., many of whom are already familiar with fundraising and have an event plan in place called a “fundraising night”. In return for advertising their business and pushing sales on your fundraising night, your chapter would receive $X$ percent of the sales from anyone who stopped by and mentioned your chapter/event.

South Dakota School of Mines and Technology’s student chapter hosted seven fundraising events using this method, which not only increase the available funds they had for the year, but offered their members an opportunity to get together off campus and blow off steam.

IV. Fundraiser Socials

In order to raise money to support our programs, as well as to facilitate more interaction between members, we often planned fundraisers in conjunction with socials.

*Audience: SDSMT BMES members and supporters*

<table>
<thead>
<tr>
<th>Fundraiser Social</th>
<th>Date</th>
<th>Time</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancho's Fundraiser Social</td>
<td>August 15, 2018 4:00 PM – 8:00 PM</td>
<td>38 attendees</td>
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<tr>
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<td>August 29, 2018 4:00 PM – 8:00 PM</td>
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<td>April 24, 2019 4:00 PM – 8:00 PM</td>
<td>47 attendees</td>
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</table>

Other fundraising avenues may be to hold a “Pi Day” or a bake sale, as the chapter from FAMSU-FSU did. They took a set amount of funds, purchased baked goods from a local bakery, and then resold them to the student body at a markup. In doing so they are able to easily increase their reservoir without depending on local industry.

iii. Pi Day Fundraiser

*On “Pi Day”, four BMES volunteers set up a table at the COE, selling small handheld pies to students, purchased from a local grocery store. The proceeds of this fundraiser went 100% to BMES.*

<table>
<thead>
<tr>
<th>Pi Day Fundraiser</th>
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<th>Time</th>
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<tr>
<td>Pi Day Fundraiser</td>
<td>March 14, 2019 11:00 AM – COE</td>
<td>4 undergraduate student volunteers</td>
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Speaking of pie, George Washington University’s chapter held a “Pie a Professor” day. Students on the lawn were able to purchase a pie and throw it at volunteer BME professors. This helped release steam in a fun way, while still helping the student chapter raise funds.

1. Pie a Professor
   a. Date: 4/25/19
   b. Description: Students welcomed to come buy a pie to throw volunteering professors, play carnival themed games, and buy food and drinks to help support the organization.

FIU’s Student Chapter held Tie-Dye Events on the lawn where students could purchase a T-shirt and Tie-Dye it on the way to class, and then stop by after class was over to pick up their dried product.

Another successful fundraiser that FIU’s chapter completed was a Candy Gram on Valentine’s day; selling the option to send your friends, lovers, and those that you admire candy all over campus. This particular event can be incorporated for any major holiday, not just Valentine’s day.

It’s important to reach out to your University or school and see what the Student Body Government offers by way of funding, or to see if the University itself would donate funds to your chapter. Many schools finance events, activities, or even professional memberships for their students in order to further their careers, so always make sure you are leaving no stone unturned.

It’s also possible to partner with local industry and request that they sponsor you. This would be something you would have to develop one-on-one with an interested business in the area, but many see the great work our chapters do for the community and want to become more involved. Reaching out to local businesses in the STEM field to see if they have grant departments or are interested in donating their time, expertise, or funds to furthering the chapters cause.

Many chapters use fundraising to cover chapter compliance minimums, by fundraising to cover the cost of ten BMES Student Memberships, this is an excellent way to remove the financial burden from your members meanwhile ensuring your chapters eligibility for national benefits.
SECTION 2: Industry Activities and Programs

One of the many key focuses of your chapter should be to create activities and programs involving local STEM industry. By planning and executing chapter-industry activities, you give your student members the opportunity to make valuable connections, thus helping them down the line. You also expose your student members to different aspects of the BME industry, be it healthcare, government, med-devices, R&D, etc.

Purdue University’s student chapter piggybacked on their campus’s recruitment or jobs fair event and held a Roundtable for BME Industry specialists who would be in attendance to sit with any students interested in networking,

2. Industrial Roundtable Annual Networking Dinner

The Industrial Roundtable (IR) is a large campus-wide recruitment event at Purdue University where industry representatives come to speak with undergraduates about employment opportunities at their respective companies. The Annual BME Industrial Roundtable is an opportunity for students to attend dinner with recruiters attending IR in a convenient and more personal networking setting. The benefit of this event is that networking occurs in a professional but significantly more relaxed environment compared to the job fair and allows for small groups of students to directly interact with hiring representatives for extended periods of time.

San Jose State University’s student chapter started small and worked their way up to hosting their own Regional Biomedical Conference; inviting local industry and academia to sponsor the conference, give presentations, conduct interviews, and allowing students the opportunity to network, and present research.

4.1 The 10th Annual Bay Area BioMedical Device Conference

An idea, 10 years ago, brought the beginning of an event that would ultimately shape the SJSU BMES chapter. A decade later, 23 sponsors, 23 speakers, and over 300 attendees came together under the theme of “New Frontiers in Biomedical Engineering”. Topics such as neuroengineering, biomedical textile applications, and biomedical needs in developing countries were all discussed by leading government researchers, professors, and industry leaders. Most importantly, the topics of digital health and the Biomedical Artificial Intelligence (AI) revolution made the largest impact at this conference. Our own SJSU professor, Dr. David Anastasiu, introduce fundamental AI and machine learning terminology. Next, Dr. Sam Jacobs presented his large scale deep learning project at Lawrence Livermore National Laboratory which utilized a revolutionary neural network setup to help design precision medicine.
The student chapter at University of California, Davis understands the importance of connecting their members with local industry to further their members careers. They have created an Industry Day which provides networking opportunities which the students later use to land notable BME internships.

Cost of Activity: $1900.97

Description of Activity: Our officer team was thrilled to unveil this new event. We were motivated to host Industry Day due to the frustration that BMEs often feel when attempting to secure a job in industry straight out of college. Industry individuals from our alumni network and the greater BME community at UC Davis were invited to attend. Two different industry panels were held, interspersed with a keynote speaker by Andrew Cleeland of the Fogarty Institute, a lunch networking session, and a resume review and networking period.

The student chapter at Arizona State University reached out to a local industry leader and discussed creating an exclusive internship program for their members. Not only do the students benefit from a greater hire percentage but the internship they would receive is transferable to school credits!

IV. HonorHealth Internship

The presentation by HonorHealth employees was preceded by a telemeeting with Ben Lewis, the System Director for HTM Biomedical, where we discussed the creation of an internship program and pipeline directly to our members. After their presentation, we connected HonorHealth to our parent school SBSHE and students may now receive academic credit through an internship with their company.

Taking advantage of previous graduates, Ryerson University’s student chapter held Alumni Night. Inviting previously graduated BME’s to a dinner or networking cocktail hour encouraged early career professionals to help students navigate their upcoming graduation.

III C. Alumni Night - 23rd January 2019

The alumni night event is hosted every year to bring together several biomedical engineering alumni from Ryerson who are working in companies across the GTA, participating in research for various hospitals or continuing their graduate biomedical engineering degrees, and professors. The event is aimed for students of all years and it gives them a unique insight into the various ways they can utilize their degree and make an impact in the engineering world, as well as tips on how to make the best of their time at Ryerson. As per tradition, the event included free food for all in attendance (67 attendees).
One of the easiest ways to give your members a leg up is to conduct tours of local industry, as the student chapter at Brigham Young University did. Conducting five tours and then inviting the professional industry contacts they had made to an industry dinner with their students turned out to be a complete success.

5. **Tour of Edwards Lifesciences - April 18, 2019**
Students toured the manufacturing facilities and spent time learning about how the various disciplines are involved in each product. We also spent time examining the products of the company and the process of designing them.

4. **Rotational Dinner - March 26, 2019**
We invited representatives from various biomedical companies in the area to participate in this event. Students had the opportunity to interact and connect with these representatives. Among the companies represented were ATL Technology, BD Medical, BioFire Diagnostics, Edwards Lifesciences, Merit Medical, and Varox Imaging.

Florida International University’s student chapter paired with IEEE and AEMB (two concurrent professional engineering societies) to bring their members an opportunity to network with industry.

The lack of Biomedical Engineering companies participating in FIU career fair made us at FIU BMES feel the need for more industrial engagement. So, we got together the other student organizations in BME (AEMB and IEEE-EMBS) to hold a social networking event for our members to get in touch with people of industry in a less formal environment and to promote our departments and its student chapters between industry professionals. BME undergraduate and graduate students, and faculty participated in this event and broadened their professional network. The session started with a keynote speaker (Nicholas Leonardi) presentation about formation of Bioelectrical industry, its progress, and prospective. The dinner was served during the networking session. In the second half of the event nominees from graduate students, presented a summary of ongoing research at FIU BME with three different field of focus: Therapeutic and reparative Neurotechnology, Tissue Engineering Model Systems, Bio-imaging and Sensor systems. The social session was continued after the presentations.

A useful tool for reaching out to local industry is your universities Career Centre; their main goal is to facilitate the students desire to connect with industry in a meaningful and productive way. Another tool would be your universities BME department chair and your chapters faculty advisor. After that, a search of available local internships in your field will help you determine which companies may be most approachable.
SECTION 3: Mentorship Activities and Programs

Another focus for your chapter is building and maintaining a successful mentorship program. Essentially offering activities, workshops, events, and incentives to promote the mentorship of one student by another. These connections and opportunities will help your members grow their career and give them a jumpstart after graduation.

Cornell Graduate School’s student chapter held bi-weekly meetings for interested members to attend and discuss ways to professionally stand out from the crowd.

C. Professional Development Workshops and Subgroups

Prof. Development Subgroup | Feb 2019-present | Location(s): Weill Hall, 237 Tower Rd, Ithaca, NY

Our chapter started a professional development subgroup to help plan professional development events for the department as well as build attendee’s professional network. This subgroup was held every other week, for 1-2 hours. In this subgroup, we discussed networking tips and tricks, held a LinkedIn critique/workshop and facilitators have met with the career center on campus to learn how best to reach out to alumni. We have also gained access to our departmental LinkedIn page to increase alumni awareness and engagement with BMES initiatives and departmental activities. This subgroup plans to reach out to relevant alumni in the fall to strengthen our departmental connections.

The student chapter at Oklahoma University invited recently graduated students and alumni to sit on a panel and discuss post-graduation life. Having an open Q&A panel gives attending students the opportunity to learn more about the pit-falls and must-do’s of post-academic life.

I. Student Panel Discussions

We hosted four BME students who each were pursuing different careers in biomedical engineering to sit on an open panel and answer questions from undergraduate BMES members. The post-graduation options of graduate school, law school, medical school, and industry were all represented on the panel. Topics discussed included reasons to get into graduate school, experiences in industry, and the impact of research in careers other than grad school. At our final meeting of the semester, BMES also hosted four undergraduate students who had obtained internships to talk about their experiences during their internships and tips for their internship applications.

Carnegie Mellon’s student chapter devised a way to bring everyone together, by pairing their student members up based on a survey and sitting them down for coffee and snacks.

La Prima Coffee Networking Talks (April and May 2019)

This new event leveraged one of a CMU engineering student’s favorite activities: drinking coffee at La Prima. Students were paired amongst themselves, based on their responses to an online survey, and encouraged to converse over the coffee. The theme of the April event was mentorship, so BME undergrads with a certain primary engineering major (i.e. Mechanical Engineering) were paired with a respective upperclassman of the same major. For the May/Finals event, students could nominate any fellow BME student that had a positive impact on their studies on the online survey.
Many schools understand the pitfalls of creating a successful mentoring program and how hard it is to keep mentor and mentee engaged throughout the year; Arizona State University’s student chapter implemented both fun and education events throughout the year to encourage their program participants to keep at it.

The goal of the ASU BMES Mentorship Program is to foster excitement and a sense of community for both freshmen and upper division students alike. Through this program, we hope to help freshmen have a smooth transition from high school to college. This is done by pairing freshmen with knowledgeable upperclassmen who can answer questions about research labs, internships, academics, and more. This year, the program consisted of 34 mentors and 118 mentees. To expand upon the mentorship program, mentor responsibilities were initiated. These responsibilities included:

- Hosting one study session with mentees per semester
- Attending one volunteering activity with mentees per semester
- Completing one fun activity with mentees per semester (i.e. hiking, movies, bowling, etc.)
- Attending one career fair with mentees throughout the entire school year

The goal of these responsibilities was to ensure that mentors and mentees remained engaged throughout the entire school year and did not lose contact with each other. Another initiative that was started included having select mentees organize a fundraiser for a non-profit organization. Despite it being the first year that this fundraiser was done, it was one of the program’s most successful events.

The chapter at Clemson University took a rather unique take on mentoring by creating teams and having them compete using a point-based system.

III. Mentoring Activities
The mentorship program included dividing participants into themed teams, having them participate in small meetups throughout the year, and a few larger events. The theme for this year was Super Mario Bros. A point system is implemented, and teams receive points for attending events as a team - main events count for more points, and there is a standing invitation to gain points for your team if you go get coffee, ice cream, lunch, etc. together at any point. The only rules are that there must be at least 3 team members present, and one must be an undergrad and one must be a graduate student.

I. Introduction Night Semester One
The setup of the program and the general rules were introduced. Everyone was placed on a team by the leaders of the program based off their research topics or interests. Each group chose a color and named their teams keeping with the semester theme; however, each team name had a bioengineering spin relating to their research/interest topics. Each team then developed a team logo and used a coin box to draw the design.
Still, other chapters utilized their Career Centre, like the chapter at SUNY – Stony Brook. They had a representative from their Career Centre give a presentation on how to create a LinkedIn profile.

**SHPE Resume/LinkedIn Workshop**  
*Summary:* A presentation by Crystal Diaz from the Career Center was hosted in Tabler Quad with a headshot professional and mentor workshop for LinkedIn creation and development.

The chapter at Tuft university holds a “Course Advising” meeting where the senior members discuss which classes, professors, and course-loads they would recommend.

**ii. Course Advising**  
We host a course advising during the Fall semester in order to guide BME students in how. The executive board provides input on classes, and discusses what classes should been taken before others. It is a good time for students to ask questions about classes to their peers.

Virginia Commonwealth University’s student chapter takes things one step further by hosting study or review sessions for underclassmen’s upcoming exams.

*Our BMES Chapter is passionate about helping the local BMES members in any way possible which includes holding review sessions for BME courses, providing mentoring for underclassmen like learning how to study more effectively or choosing classes, and more. If there are any ways to help students, this chapter highly encourages students to let the chair of the Mentorship Committee know and they will make sure it will happen. The officers of BMES at VCU have shown to be resourceful in terms of setting up the review session which includes booking a room and informing members of such events. We have held a applied physiology review session for sophomores to prepare them for their upcoming exam and was found very*

A new program, implemented by BMES national, is our Mentor Matchup program. Log onto our website and under Student Chapters there will be a “Mentor Matchup” link, read over the forms and determine which request is right for you and your chapter and submit it asap. It may take some time to find the right match so the more time you give the Society to fulfill your request the better the odds of a successful match.
SECTION 4: Inter-Chapter Activities and Programs

An important component of a strong student chapter is the ability to work well with others, namely other professional organizations located on your campus or other BMES student chapters located in your region. Creating events, regional conferences and competitions, and workshops with other chapters will benefit not only your members but those in the community around you.

University of California, Davis’s student chapter hosts an annual hack-a-thon type event they have dubbed as a “Make-A-Thon”. Not only do they fundraise, plan, and execute this event but they coordinate with regional student chapters from other universities to ensure they are able to attend as well. Doing so extends the benefits gained from this type of event from just your student members to those in the region at large.

Inter-Chapter Activities

Our club aims to facilitate connections with other BMES chapters in the surrounding area. We invited several other chapters to our annual Make-a-Thon event, to which four teams from other schools attended. We also aim to either host or attend a summit every year, but unfortunately, we had to cancel ours this year due to a fire affecting air quality around UC Davis.

Make-a-Thon

For the past five years, the Biomedical Engineering Society at UC Davis has held an annual Make-a-Thon. Similar to a hackathon, the Make-a-Thon is a competition in which participants have 48 hours to design and prototype a medical device that solves a given clinical or medical problem.

The student chapters at the University of Maryland and Johns Hopkins University join together annually to put on a co-hosted “Mid-Atlantic Research Competition”.

1. Mid-Atlantic Research Competition

The seventh annual Mid-Atlantic Research Competition was hosted at Johns Hopkins University on April 12th, 2019 from 10:00 – 4:30 PM, co-hosted by the University of Maryland. This undergraduate fair and competition allowed undergraduates at all institutions to present their research in a friendly competition. Approximately 40 students, faculty, and distinguished guests from JHU and UMD attended our event. Previous years have included the University of Delaware and Widener University who were unable to attend this year. BMES-UMD worked with the JHU executive board to plan the event. In attendance for UMD, we had 1 undergraduate students present a poster and 3 undergraduate students deliver oral presentations. JHU had 7 oral presenters/teams share research, and they also had approximately 15 poster presenters.

Industry judges presented our students with the opportunity to network with potential employers. Dr. Jennifer Elisteed, distinguished professor at JHU, gave a keynote speech. We are excited to continue and expand this tradition next year. We hope to include even more universities next year and maintain the ones that have previously attended. While the event historically has alternated between UMD and JHU’s campus every year, future boards could consider the idea of including other universities in hosting and planning duties.
San Diego State University’s student chapters looked to neighboring schools to see what large scale events they were hosting and sent their student members to STEM focused conferences, such as the one at San Jose State University.

### III. BMES SJSU Conference

3 BMES members attended, two presented their research at the conference, while one represented SDSU and learned about the research going on in the Bay Area.

**Audience:** All BMES members

<table>
<thead>
<tr>
<th>BMES-SJSU Conference</th>
<th>April 3rd, 2019</th>
<th>3 BMES members</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>San Jose, CA</strong></td>
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Of course, like Ohio State University’s student chapter, attending the Annual Meeting is a great way to network, learn, and make the appropriate connections to facilitate the planning of inter-chapter activities!

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.

The student chapter at Cornell Graduate school invited local undergraduate BMES chapters to tour their campus labs.

#### A. Binghamton University Undergraduate BMES Chapter

*Undergraduate Lab Tours* | 13 April 2019 | Location(s): Weill Hall, 237 Tower Rd, Ithaca, NY

Our chapter coordinated with Binghamton University BMES representatives to talk with undergraduates about our graduate programs for both M.Eng and PhD tracks. We also provided tours of our many labs facilitated by members of Cornell BMES in their respective labs and enjoyed lunch afterward. A total of 8 undergraduate students arrived and were facilitated by 7 Cornell graduate BMES members.

Knowing how much effort goes in to creating symposiums, competitions, and research presentations, the student chapters at University of California, LA and University of Southern California got together to play Volleyball and blow off some steam. Remember, it’s just as important to have fun and stress-detox as it is to plan and attend events that boost your resume.

#### 3. Inter-Chapter Activities

This year we had our first inter-chapter collaboration with USC’s ASBME chapter. It was a very fun and rewarding event and we hope that this marks the start of continued collaboration between our two chapters.
SECTION 5: Community Outreach Activities and Programs

One of the goals of any student chapter needs to be giving back to the community, be it through mentorship of younger students, organization charity work, fundraising or item-drives, or cleaning up the environment. Not only is volunteer work regarded highly in the professional community but it imbues the self with a sense of accomplishment and well-being.

Wichita State student chapter partners with a local HS to create a one-on-one mentoring program for their students.

North High School Mentoring
First, our partnership with North High School allows our members the opportunity to mentor a high-school student one-on-one through a year-long project. This particular initiative allows our members to share their expertise in problem-solving and project management, as well as their technical skills with a high school student in North High School’s Project Lead the Way (PLTW) Biomedical Track program. We hope that our presence in a mentorship role with students who have already expressed interest in the biomedical sciences will spur these young adults on to futures in college, and maybe even in biomedical engineering in particular.

Also working with local HS students were the student chapter members of Virginia Tech – Wake Forest University.

B. High School STEM Visit
We planned a visit for students from Reagan High School in Winston-Salem, NC. Activities included a brief BME overview, a tour of the BME facilities at Biotech Place, including the 3D printer with demonstration and a graduate student panel.

The chapter at University of the District of Columbia organized and hosted local HS students on lab tours of their campus, to encourage interest in STEM and BME.

CollegeBound BME Exposure & CBRE lab tours: Three UDC BMES members, the UDC BMES faculty advisor and 64 high school youths & 12 parents participated. The CollegeBound CBRE lab tours were hosted by the UDC BMES faculty advisor and UDC BMES members. There were 64 DC high school youths and 12 parents that participated in the event. A primary goal was to increase (and “spark”) DC public school students’ understanding of and interest towards career paths in BME, and secondly, to expose them to the activities and research conducted within the CBRE lab.

Hold onto your hats, because the student chapter at University of Texas, San Antonio held two weeks of STEM summer camp, called “Interactive Technology Experience Center Summer Engineering Camp”

BMES at UTSA conducted 2 weeks of iTEC camps. One for children 3rd-5th grades and the other for 6th-8th grades. The curriculum for both weeks was 5 days long and consisted of 5 topics: Biomaterials, Biomechanics, Nanotechnology, Cellular Biology, and General Engineering Day.
Clemson University has a longstanding history volunteering their time to a local elementary school for that school's Engineer Day, showing the young students how fun a career in STEM can be!

1. Roebuck Elementary School 4th Grade Engineering Design Mentor Day
   This was the 4th annual collaboration between CBS and the entire 4th grade class, consisting of over 150 young students, at Roebuck Elementary School (a rural elementary school located in Spartanburg, SC). 4th grade students were asked to develop an invention/engineering design in order to solve a problem they face in their lives in a specially designed education unit. A group of 15 bioengineering graduate students visited the students in order to mentor them in engineering design, invention, and entrepreneurship. The fourth-grade students met one-on-one with the bioengineering students, presenting their inventions, explaining their design process, and discussing what they learned as they executed their design. Mentors provided constructive feedback to the students, encouraged them to continue to pursue STEM education, and provided supportive advice about entrepreneurship and invention. This event provided a great opportunity to expose these students to real-life engineers who could encourage and inspire them to pursue STEM careers.

ASBME, the student chapter at University of Southern California regularly hosts their “Project in a Box” day for elementary children.

1. Project in a Box
   Launched in 2016, PiaB is an outreach program geared toward visiting local 3rd to 6th grade classrooms to stimulate an interest in STEM and develop problem-solving skills at early academic stages. PiaB presents interactive projects and scenarios that prompt students to consider the engineering design process as it applies to the human body. We currently offer interested teachers our main lesson plan, the Prosthetic Hand Project, and are currently developing multiple other project scenarios. Students are given some time to learn about the background information for a predetermined topic of interest; however, the majority of the lesson is spent with students interacting with physical materials and producing specific design requirements, as typical engineers do today. These one-time lessons last between 50-60 minutes, a timeframe that gives students time to gain interest in the project but also not distract them too much from their main academia. This upcoming school year, we are excited to debut a new lesson plan involving DNA and novel biomedical applications to the genome and look forward to partnering with more local elementary and middle schools.

The chapter at the University of Florida impressed upon their community just how much giving back matters by volunteering their time on food drives, at the Humane Society, for Habitat for Humanity, and many other organizations.

b. Gainesville Community Ministry & USDA Food Drive
   i. September 22, 2018, 10:00 to 12:00PM
   ii. Details: Our team of volunteers gathered to organize the food pantry at Gainesville Community Ministry and fill bags in preparation for an upcoming food drive sponsored by the USDA. We filled 400 bags of food to be given to 200 Gainesville families.
   iii. 10 undergraduates
The University of Arizona’s chapter members manned a both at the Lung Force Walk, providing facts and resources on lung health.

**Lung Force Walk:**
Students from BMES volunteered to assist the American Lung Association in running booths at this charity walk event. These booths housed prevention activities, tips for lung health, resources to quit smoking, and a place to sign up to share lung disease stories.

University of Maryland’s student chapter partnered with a local company INOVA and hosted a blood drive on their campus.

**2. INOVA Blood Drives**
Through our partnership with INOVA, we organized and hosted blood donation drives for both the fall and spring semesters. The donation drive was advertised in advance to the BMES and bioengineering community, as well as other engineering students and faculty. BMES volunteers coordinated donor check-in and patient waiting areas in addition to donating blood themselves.
The student chapter of Stevens University volunteered for lab duty at a local HS, utilizing their own lab experiences to help guide HS students.

1. **Hoboken High School Volunteering – Lab Help**
   Stevens BMES worked with Mr. Samuel Thomas’ biomedical sciences class at Hoboken High School to assist in their labs. We attended their two lab sessions and guided the students with the lab when they had questions or were unsure on the lab procedure. BMES members used their knowledge gained in their labs to help the high school students perform their labs.

Building on an event taking place every week during the summer, the graduate chapter at Purdue University hosted a booth at their weekly farmers market.

1. **West Lafayette Farmer’s Market & Imagination Station Interactive Booth**
   We host a booth at the West Lafayette Farmer’s Market on Wednesdays during the summer. We asked individual labs to present their research in an accessible hands-on format. Activities ranged from exploring polymer beads for drug delivery to paper fluidic diagnostic systems to cardiovascular interventions. Through the market we can engage with students from pre-school through high school and their parents.

Using their skills, the students of Ohio State University’s student chapter partnered with M.A.P (May We Help) and tackled two of their assignments.

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.

Gathering together, the chapter at Stevens University, held a Valentines day card making social with the aim of making enough cards for patients at their local Children’s Hospital.

IV. **Children’s Hospital Valentine’s Day Card Making**
   Students from Stevens Institute of Technology were able to come together and use their creative side to make and decorate Valentine’s Day Cards for the Children’s Hospital. Some materials used to make the cards were colorful construction paper, markers, glitter glue, and stickers. Students were able to make heartfelt and creative cards while mingling and having a good time with each other.
SECTION 6: Social Activities and Programs, marked Other

As a successful student chapter, in order to retain members and encourage growth, you have to provide activities that are not only engaging, challenging, and rewarding, but also fun! Which you can have fun working with the community, volunteering, fundraising, mentoring, and working with industry, sometimes it’s nice to kick back and do something for nothing.

The chapter at Virginia Tech – Wake Forest University entered a group costume contest and gave out candy in the community Halloween festival.

D. Innovation Quarter Halloween Festival in Bailey Park

SBES was happy to participate in the Halloween Festival at Bailey Park in Winston-Salem, NC. Community events included a costume contest as well as distributing candy to ~80 3-4 year olds from the local daycare (MudPies Downtown East). Although we didn’t win the costume contest, we enjoyed decorating a table and sharing candy with the children.

Promoting a sense of fun and friendly competition during Halloween calls for a Pumpkin Carving contest, like the one the chapter at Arizona State University hosts.

V. Pumpkin Carving Design Challenge

The goal of this event was to give mentors and mentees an opportunity to get into the spirit of Halloween and have fun. Participants were able to carve pumpkins and solder a simple circuit to light up their pumpkins. Snacks were provided.

Combining a little fun with life skills, the chapter at Brigham Young University held a “Chicken Suturing Social” where they learned how to suture chicken, after which it was cleaned and BBQ’d.

2. Chicken Suturing Social - September 6, 2018

This event occurred during the first week of BYU’s semester. This allowed us to welcome back club members, reach out to new members, and recruit other students from on campus to participate and join the club. They were taught how to suture using raw chicken breasts, and a barbecue was provided for them.

The chapter at California Polytechnic State University held a “Paint with Bob Ross Day”, which encouraged socialization and alleviation from stress.

Our social chair also hosted a “Paint with Bob Ross Day”, where members could come together and watch a video of Bob Ross and paint whatever they desired and socialize.

A common tool to gather your group or recruit interested new members is to throw a social featuring food, like the Ice Cream Social the chapter at Carnegie Mellon held.

6. Ice Cream Social (5/2/2019)

An ice cream social was hosted for the entire department, inviting all students, faculty, and staff to mix and mingle. Multiple different ice cream flavors and toppings were offered.
For a university with a large football team fanbase, tailgating is a good way to raise team spirits; Clemson University’s student chapter they hosted a tailgating event at every home football game available

II. Fall 2018 CBS Hosted Football Tailgates

   Tailgating provided a fun way for graduate students to spend time together and celebrate Clemson football. CBS provided items such as hotdogs, hamburgers, soft drinks, and cutlery/cups/plates. Members would bring a side dish or smaller item to share. Each tailgate was held beginning 3 hours prior to each home game. Several tailgates had a theme (i.e., breakfast/brunch).

Nothing says fun like dropping an egg from a large building, just ask the student chapter at Colorado State University. They tasked their members to build a contraption that would safety deposit their egg on the ground, causing the frantic but speedy design of egg parachutes.

3. **Egg Drop Competition (March 27, 2019)**

   Members were paired up and tasked with making a device to hold an egg and allow it to be safely dropped from a height of 35 feet. Members were given 20 minutes to make their device. This event gave students a time to use the basic knowledge they have been learning in their engineering classes in a fun, low-stakes competition. We had five teams compete, of which two were successful in saving their egg from cracks.

The international chapter from Ryerson University bonds over the rink, where they ice skate after classes.

   The 2018-2019 executive team participated in a team building event after class, where they visited an ice skating rink in the vicinity during the month of February. The activity helped team members get to know each other better and build a strong relationship within the team.

Having fun, the jeopardy way, FAMU-FSU’s chapter goes to a local weekly Trivia night and competes for first place.

i. **Trivia Nights**

   *We attend a Trivia Night every other week at a local restaurant, Mellow Mushroom. The trivia games are often from an item of pop culture, such as a movie, or TV show. This is an opportunity for members to socialize and enjoy time as a group.*

The chapter at Florida Gulf Coast University understands that stress is the ultimate enemy of a successful chapter member and so partnered with a local animal organization to bring puppies on campus to hang out for a few hours.

III. **E-Week**

   *Engineering Week is a week full of fun activities that are planned with all of the Engineering Organizations in our school. We collaborated with different establishments in order to provide a fun week for our members. Every morning we offered the students free breakfast in the lounge of the engineering building. Pet Away Anxiety Worry and Stress (PAAWS) allowed us to bring puppies to come and hang out and allow our members to be stress free for a couple of hours. The*
Johns Hopkins University’s chapter holds a “Winter Social” open to students and faculty, giving students the chance to dress up, socialize, and dance their worries away.

**BMES Winter Social**

Winter Social is one of our chapter’s most popular events, garnering almost 300 students and faculty each year. Held in our large Glass Pavilion event hall, we had almost 70% attendance this year. The event this year included food provided by Zeffer and Gold, featuring exquisite dishes such as Salmon and a Pasta Bar. A photo booth was set up, with JHU Photography Forum providing excellent photos to document the night. Our T-shirt design contest winner was also celebrated this year, with long-sleeved t-shirts being sold at the event; we sold out all of our T-shirts and proceeded to order more for the following semester. This event provided faculty and students with an invaluable opportunity to connect with one another.

Knowing that sharing is caring, the chapter at Louisiana Tech University hosts potluck parties and invites professors to attend for some socializing time with students.

Our final social event for the year was a Christmas party on December 13th. Again, this was a potluck event. In order to encourage students to attend, we invited biomedical engineering faculty to attend and speak to students. This was also done to introduce underclassmen to the professors they would have in one to two years. However, we did not need to try to encourage students to come because this ended up being a much larger event than expected. By the end of the event, we had roughly 50 students come through. These students included aviation and history majors. Faculty and students both loved this event.

Mayo Clinic – Southeast Minnesota University’s student chapter holds a secret Santa type event in mark called the “Lucky Leprechaun”.

We held our 4th annual Lucky Leprechaun event this year. Lucky Leprechaun is “Secret Santa” in March instead of Christmas time. Members are assigned a Lucky Leprechaun who secretly drops off a small gift once throughout the week. This event ends with a social gathering in which final gifts are exchanged and members try to guess who their Lucky Leprechaun was.

The chapter at Ohio State University baked, or should I say caked, into a frenzy when they hosted a cake decorating event for their members to socialize and then eat.

<table>
<thead>
<tr>
<th>Cake Decorating</th>
<th>1/17/19, 7:00 pm</th>
<th>BMES Members: 10 attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPAC Meeting Room 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
Purdue University’s chapter focused on the importance of culture in the community by hosting four different themed celebrations.

This year, they wanted to focus on events that would give students a sense of ownership to some of the cultural activities. We hosted a Korean celebration in January, holding a kimchi-making event to celebrate Korean pickling methods and popular dishes. In February, we celebrated the Lunar New Year to encompass East Asian cultures. To celebrate the end of the Russian winter, we hosted a cooking event called Maslenitsa in March. Finally, we hosted a dinner to mark the start of Muslim Ramadan, learning about the importance of fasting, prayer, reflection, and community.

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kimchi Party</td>
<td>January 26th, 2019</td>
<td>15</td>
</tr>
<tr>
<td>Lunar New Year Celebration</td>
<td>February 5th, 2019</td>
<td>&gt;30</td>
</tr>
<tr>
<td>Maslenitsa</td>
<td>March 9th, 2019</td>
<td>14</td>
</tr>
<tr>
<td>Ramadan Kick-Off</td>
<td>May 6th, 2019</td>
<td>25</td>
</tr>
</tbody>
</table>

Even faculty need to have some fun, so invite them to a faculty themed social event and encourage the student members to mingle and decompress with their professors like the San Diego State University chapter did.

III. BMES Faculty Social

*We hosted a faculty social in order to create a relationship by playing games such as ping-pong, corn-hole and lawn bowling. This turned out to be great for students as they had not seen their professors in such a casual environment and for faculty as well as a break from their work.*

Knowing an isolated nation is a lonely nation, the chapter at South Dakota School of Mines and Technology collaborated with other student clubs and chapters on campus to create large scale socials.

Over the last year, we branched out to three different student organizations we had not previously partnered with. By forming connections with other organizations through joint socials, we not only formed lasting personal connections, but also professional networks that introduced us to more opportunities and helped us in planning events. The student organizations we were able to collaborate with this year were the Future Health Science Professionals club (FHSP), the 3D Print club, and the Innovation Club for Entrepreneurs (ICE). FHSP has been particularly helpful as we have many overlapping members and many of the same interests. Some of our tours and speakers were open to members of both organizations. In the future, we hope to work with many more organizations across different disciplines.

The chapter at University of Illinois, Urbana Champaign hosted a holiday themed movie night where their members could relax, unwind, and talk over a movie together.

**Halloween Movie Night/Cookie Decorating**

BMES members gathered for a Halloween movie night, with cookie decorating and snacks. This allowed members to enjoy a wholesome holiday-themed event that was both relaxing and a comedic relief from coursework and busy undergraduate schedules.
Taking advantage of the natural beauty of their campus and the water bodies it sits on, the student chapter at SUNY, Stony Brook participated in a boat building competition, which put their team work and engineering skills to the test.

**Roth Regatta**

*Summary:* The goal of this event was to create a boat from scratch to win the race at Roth Regatta. We spent two weeks designing and building the boat. Eugene was leading the whole operation and was one of the rowers for the event. BMES members bonded over spending week nights working on the boat together. At the event, Eugene and Maham were rowers while Lihanna, Asel, and Abdullah were pushers. We won second place for the two-person boat race.

Another way to enjoy the natural world around you is to plan hikes with your chapter members, as the University of Arizona has done.

**Wasson Peak Hike:**

Our chapter planned a Moonlit hike to Wasson Peak in Tucson, Arizona. This hike was to offer a getaway to those students feeling the stresses of schoolwork and to offer members a chance to appreciate the cool and beautiful nights in Tucson.

A popular activity among the chapters, including the student chapter at the University of Southern California, is member bowling night!

**Bowling with Biomedical Engineers**

With finals season approaching quickly, it is essential that students have an opportunity to blow off steam before hitting the books. Students rideshared to Shatto Lanes in Koreatown and bowled and bonded over a few frames, then visited various dessert establishments to close the night. This event not only prepared students for the upcoming finals season, but also promoted interaction with members across classes and emphasis.

The chapter at Virginia Tech – Wake Forest University knows a full student member is a happy student member, and hosted several “Donut Socials” throughout the year, inviting both faculty and students.

**H. BMES Donut Social**

*This year we introduced a Faculty, Staff, and Student Donut Social to celebrate attaining our donation goal for the Thanksgiving Food Drive. Carol Lee donuts were sponsored by the Chapter, and the faculty, staff, and students had a chance to mingle and snack.*

Worcester Polytechnic Institute’s student chapter invited students, alumni, faculty, and family to their annual “Field Day”.

**BMES Field Day**

The third annual BMES Field Day event was held on April 13, 2019. Students, alumni and faculty, and their families were invited to enjoy a day outside with food, music, lawn games, a pie eating contest, relay races, etc. A total of more than 60 students, alumni, and faculty networked and enjoyed the day. BMES also raised about $180 through selling T-shirts and raffles, which was put into the club’s funds.