

Biomedical Engineering Society

LIFELINE 2012-2013

A student organization for scholars of any major interested in applying science and engineering to medicine.



Biomedical
Engineering
Society
UW-MADISON

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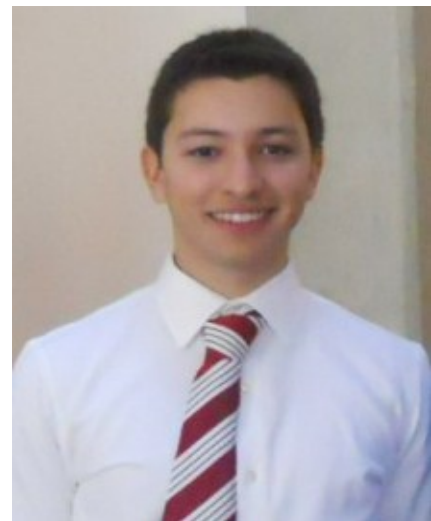
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Letter from the President *Gabriel Bautista*

One of our main goals this year at BMES was to increase attendance at our events. We started the year off strong with a kick-off meeting that packed the Tong Auditorium with more than 100 attendees. Our social and outreach events also saw an increase in attendance thanks to heavy advertising during the first weeks of class. After a successful start of the semester, BMES focused on starting our mentorship program.

Our mentorship program seeks to bring together students with similar aspirations, whether they are plans for graduate school, medical school, or going into industry, in order to share experiences and advice. Although UW-Madison provides numerous resources to help students follow the path of their choosing, we believe that some of the best advice can come from other students that have chosen the same paths. Underclassmen in BMES had the opportunity to meet and be matched up with upperclassmen with similar interests to discuss topics such as courses, extracurricular activities, and other ways that they can help prepare themselves to achieve their goals. Students talked about their concerns and issues with their mentors at the library, over dinner, and even during Rec sports events. As this program continues to grow, we feel that it will be a great resource for all prospective and current BMES.

Last semester, during late October, four of our officers had the opportunity to travel to Atlanta, GA for the annual BMES National Conference. This conference gave us the chance to meet other BMES student chapter leaders from around the nation, allowing us to exchange ideas for strengthening our chapters. During the student chapter development seminar, we learned about what chapters are doing in



order to raise funds as well as how to expand our current outreach program. Unfortunately this year we did not receive the Meritorious Achievement award or the Outreach Program Award, however, we plan to bring both of these awards back to Madison next year thanks to the advice we received during the conference.

This spring we plan to add a greater variety of events for our members, such as a trip to Minneapolis to visit Medtronic as well as University of Minnesota's Medical Devices Center. We will now be able to offer this kind of trip more frequently thanks to winning ZipCar's Students with Drive contest in January. This award has given us the chance to offer transportation to our events for our members at no cost to them. BMES will also be hosting its own exhibit for Engineering Expo this semester. Our plan is to win back the Best Student Chapter Exhibit award at Expo. With these and many other goals in mind, we look forward to a successful spring semester.



Meeting Times:

Every other Wednesday,
6pm to 7pm in 1800
Engineering Hall

Contact Information

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BMES Website:

bmes.sl.cae.engr.wisc.edu

Compiled and edited by
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When We Aren't Studying *Kyle Jamar, Social Chair*



As students in Biomedical Engineering, our schedules are usually packed full, whether it be doing homework or studying for exams, working in a research lab on campus or cramming to finish our design projects. Despite the busy schedules, BME's still managed to find time for those all-important social events.

Throughout the fall semester, BMES was able to host eight different socials, all of which had high attendance amongst members. Kicking the fall off with a trip to the Comedy Club on State – routinely one of the most successful of the BMES social events – allowed both young and old members alike to get acquainted while getting in a few laughs. The trip to the Comedy Club was followed up by events such as ice-skating at the Shell, breakfast at Mickey's, and the ever-popular trip to Essen Haus to pass around a few boots.

Along with the more typical social events, we were also able to organize a handful of outings with other engineering student organizations and company representatives. One of the most popular events of the semester was a joint social done with the American Society of Mechanical Engineers (ASME), where members of both organizations were able to network over pizza and drinks at the Stadium Bar and Grill. Another well-liked event, bowling at Union South with a BMES alumni from General Electric Healthcare, provided an opportunity for members to network one-on-one with a company representative in a laid back environment. Finally, a competitive game of capture the flag with the Institute of Industrial Engineers (IIE) gave BMES members a shot at bragging rights for the year.

With another fall semester now in the books, BMES is looking forward to starting the spring semester off in style by taking a ski trip to Cascade Mountain. We also look forward to rescheduling a day at the ALPs high ropes course after it was cancelled due to weather in the fall, a potential competitive golf outing with another student organization and, of course, the biggest event of the year, the annual BMES trip to a Brewer's game.

Cruisin' to Success *Patrick Hopkins, CRUISE Chair*

Which class should I take? Is that professor hard? Where do I even begin? These and other questions like them have crossed the minds of just about every student at one point or another. It can be frustrating to struggle with important questions and choices. Fortunately, BMES has the CRUISE chair to help with all matters pertaining to Counseling and Resources for Undergrads in Science and Engineering. The goal of the CRUISE position is to pass on the experiential knowledge of getting accepted into the BME department, scheduling classes, and writing a killer resume onto undergrads in BME. This is done through specific events like the BME Essay Writing Workshop, Career Fair Workshop, and Class Advising Session.

This past semester we had the exciting opportunity

to kick off a new element in the CRUISE department: the Mentorship Program, with the goal being to strengthen the link between upper and underclassmen. By pairing a few underclassmen with an experienced upperclassman, the new students are provided with a wealth of knowledge and a confidant in the BME department that they feel comfortable asking advice from or just hanging out with. The Mentorship Program aims to make the giant world of UW- Madison seem just a little bit smaller by familiarizing new students with the exciting and innovative BME department here on campus.

BMES is looking forward to another semester of promising and challenging projects as well as events to advise, guide, and ultimately make the college experience a fun one.

Spring Semester Events:

Engineering Expo Exhibit

Speakers:

Jiasheng Song of AhR Pharmaceuticals
David Appleyard of ABS Global
Mark Gehring of Asthmapolis
Dr. Andrew Wentland
Dr. Chris Reikersdorfer of Eso Technologies

Outreach:

River Food Pantry
Science Olympiad
Relay For Life
Local Habitat for Humanity

Trips:

Epic in Verona
Minnesota to Medtronic and the University of Minnesota
Twin Cities Medical School

CRUISE:

Career Fair Prep Workshop
Lab of the Month
Class Advising Night
Grad School Q & A
Application Essay Writing Workshop

Social Events:

Ice Skating at the Shell
Breakfast at Mickies
Rock Climbing at Boulders
E-Week
Skiing at Cascade Mountain



Giving Back

Hannah Pezzi, Outreach Chair

With the fall semester over, there has been ample opportunity for BMES to help out in the community. For many of us, volunteering and giving back to the local community here in Madison has become an integral part of our BMES lives. This year has proven no different. Our weekly River Food Pantry trip is arguably many people's favorite. We take off after Friday classes to go serve a hot meal, weigh groceries, pass out produce and just help out where we can at the food pantry here in Madison. I think it is safe to say that everyone looks forward to the chicken or ham soup or stew we can all smell cooking throughout the night while all of our roommates look forward to the box of bread, treats, and occasionally coconuts we bring home at the end of the night. Our other weekly staple is helping out with some of the students at Eagle Middle School with their science competition projects. From mouse trap cars to helicopters, there is always a project that gets our attention.

This past semester we also dedicated an afternoon to volunteer with a local Habitat for Humanity build putting up the interior walls of a house. One afternoon with Habitat is never enough though so over winter break, BMES crammed into four vans with twenty-four people to make the long drive down to Dade City, FL for a Habitat build. We braved the long drive by stopping on the way for only the essentials, such as the Packer game and despite the Packer letdown, winter break with BMES could not have been better. In Florida, we worked on two houses putting up walls and hurricane strips as well as spending some time in the Habitat for Humanity Resale Stores. To break the days of work up we spent the day at the beach from which many of us returned a shade of red rarely seen before.

With a semester to go in the year there is still plenty to do. In the upcoming semester we plan to continue our regular outreach events as well as add a few more. We will be signing up a BMES team with Relay for Life as well as helping out with Cornerstone to sort medical supplies. Without a doubt, this semester will be another great one.

Economics for Engineers

Taylor Weis, Treasurer

As evidenced by our many outreach and social events, our chapter of BMES is always keeping busy. It takes many people and time to make all of our events as successful as they have been. It also takes quite a bit of financing. That's where the treasurer comes in.

Although membership is not required for participation in BMES events, we currently have over 75 official members of the UW-Madison chapter. The organization provides many special benefits that for official chapter members, including discounted prices for event attendance as well as discounts on rent when members sign with JSM, a local property management company. Funds from BMES also go towards buying pizza for all general member meetings, a custom that helps to draw in new members as well as keep old members coming back.

Our chapter of BMES also participates in a yearly tradition of traveling to another part of the country and building houses with Habitat for Humanity. This year, we went all the way down to Dade City, FL, which as you may imagine, was a bit more expensive than our usual trip. We also visited the BMES National Conference in Atlanta, GA to gain meet other members of BMES and exchange ideas. Because of this, we had to do quite a bit of fundraising.

Our big fundraiser this year was working with It's Your Party, a party-planning company that holds casino nights for customers. BMES members were trained in blackjack dealing and then attended events all over Wisconsin, from Beloit to the Wisconsin Dells to Green Bay, to raise money for our trip to Florida as well as general funds.

We were also fortunate this year to receive funding from a variety of different sources. BMES received extremely generous grants from the Associated Students of Madison and the Polygon Engineering Student Council. Another large source of funding was Biomet: Biomedical Instruments, a company based out of Indiana that graciously sponsored our trip to Florida for Habitat for Humanity.

In the upcoming semester, we are looking into new sources of fundraising, as well as continuing with our old fundraisers. It is imperative that we continue to fundraise so that we can provide events for our members at reasonable prices, attend our National Conference, and support our many different outreach events.

My Heart Beats for BMES

National Habitat for Humanity
Breakfast at Mickies
Science Olympiad
River Food Pantry
Lab of the Month
Brewer's Game
BMESsen Halls
Industry Trips
Comedy Club
BMES Skiing
Ice Skating

Biomedical Engineering Society
University of Wisconsin - Madison
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Professional Development

Colin Korlesky, Industry Chair

Often times as students we're pushed into a field of study without completely understanding how this coursework relates to our future or even what exactly our future entails. This is no exception for students in Biomedical Engineering. Thus, UW-Madison's BMES chapter aims to supplement students with as much insight as possible into what their future may entail- whether this be delving into research, graduate studies, the bio-tech and medical device industry, or becoming a healthcare provider. In order to accomplish this goal, multiple visits to various research facilities were organized, industry trips were planned, and speakers were invited to present their work and careers at our bi-weekly meetings.

In order to see current research in the UW-Madison Biomedical Engineering Department we visited the System Regeneration Lab of Dr. Ogle. There, we learned of the current research to find mechanisms by which stem cells contribute to tissues during development and to then integrate these insights together with engineering principles to replace damaged body systems.

Once we've finished with our undergraduate studies, graduate school and a masters or PhD is always an option. To help our members get their foot in this door, we provided a graduate school panel. Multiple graduate students described their experience in graduate school thus far. Such experiences ranged from the application process to current activities and even future opportunities. No doors were left unopened.

For those students seeing healthcare in their future, BMES members were invited to participate in AMSA's Doctoberfest, presented at the UW School of Medicine and Public Health. At this even, speakers shared their experiences in Medical School admissions, global health, and the future of medicine and primary care.

BMES continued its commitment to providing opportunities and education to its members this semester, and the outlook for next semester is just as promising. Through all of our hard work we have created a bridge between academia and professional work, which can only be strengthened in the coming months.

Making Connections

Jeff Hlinka, Department Relations

There comes a time in a BME's undergraduate career when they must look forward to plans post-graduation. In order to help these students figure out their plans, a BMES position, called Department Relations, was created two years ago. This position focuses on providing undergraduate biomedical engineering students with resources to link them industry, graduate and medical school. Additionally, the Department Relations position works to connect BME undergrads with graduate students and faculty in hopes that they develop relationships to enhance themselves professionally.

In the fall semester, the BME-GSA helped put on a graduate school information session to teach students about why you might want to go to grad school and what to expect. Every semester BMES puts in effort to give undergraduate students the opportunity to tour labs around campus in an event titled "Lab of the Month." This past fall we visited Dr. Ogle's lab which focuses on stem cell biology, and Dr. Kreeger's lab which conducts research related to systems biology. These events really allowed BMES to connect with faculty and graduate students that undergraduates may not interact with normally.

An event planned for the spring semester is Breakfast with BMES. This event invites all undergraduates, graduates, and faculty to share breakfast and connect with each other. While we have already held another Lab of the Month this February, BMES will continue to expose undergraduates to hot areas of biomedical research that they may not see in the very design-oriented BME curriculum. Hopefully, BMES members will continue to take advantage of the events that help them build relationships with graduate students and faculty in the upcoming year!

**A special thanks to Biomet for sponsoring
the annual National Habitat for Humanity
trip to Dade City, Florida!**

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Donation Information

The BMES officers have had another great semester and put together a wide assortment of events for all members. We strive to provide many different opportunities for members so everyone can get what they want out of BMES. This includes fun at our socials, professional development or networking from our industry and medical school speakers and trips, and being able to volunteer at our outreach events. However, due to the increased interest in BMES it has become more difficult for the chapter to hold such a variety of events for members. Also, the University funding we receive has been especially limited in recent years, and our members are often forced to pay more for such experiences instead of the chapter being able to provide the funds. One of our largest trips, the Habitat for Humanity trip, often requires members to pay \$150 to \$300, dependent on how much grant money we receive. The grant money is provided through organizations such as the Associated Students of Madison or Polygon Engineering Student Council, and thus is not a reliable source of income due to the many and varied organizations these governing bodies support.

We would like to continue to provide great experiences for our members and if you would like to donate to our organization, please go to the BMES website <http://bmes.slc.engr.wisc.edu/> and click on **Donate** link on far right of the main menu of our homepage. Your donations can be written off for tax purposes. BMES is always appreciative for all the past, present and future support that we receive!

Thank you!