

Material Advantage at the University of Illinois at Urbana-Champaign
Chapter of Excellence Application
Fall 2016-Spring 2017



Fall 2016-Spring 2017 Material Advantage Executive Board

Front Row (L to R): Devon Papanicolas (Treasurer), Dustin Reisberg (Keramos Liaison), Andres Velarde (President), Michael Hu (Vice President), Samuel Kaufman (Secretary).

Middle Row (L to R): Elisabeth Lang (Webmaster), Audrey Lee (Engineering Open House Director), Sai Komaragiri (Service Chair), Mitch Schroeder (Metals Representative), Anisa Nuanes (Biomaterials Representative), Bridgette LaFaye (Polymers Representative).

Back Row (L to R): Rangarajan Thiruvengadam (Ceramics Representative), Brendan Eng (Electronic Materials Representative), Heer Majithia (Social Chair), Jeff Schooler (Webmaster), Bao Lam (Freshman Representative), Kyle McKillop (Professional Chair).

CHAPTER OVERVIEW

The mission of Material Advantage (MA) at the University of Illinois at Urbana- Champaign (UIUC) is to promote the academic, professional, and social welfare of the Material Science and Engineering (MatSE) student population on campus. Moreover, we seek to establish a bridge of communication between our students and the MatSE department and alumni, we aim to provide resources and guidance for students chasing success in their classrooms and careers, and we strive to build an inclusive social network of friendship and collaboration among MatSE majors and materials-lovers alike.

Our chapter of MA has an executive board comprised of seventeen students who work together to organize and execute a wide array of events that serve to achieve our aforementioned goals. Board members span all concentrations---ceramics, metals, polymers, electronic materials, and biomaterials---and years in the department curriculum while our general body is comprised of any students interested in material science. Executive positions include Social Chair, Professional Chair, and Service Chair, whose roles and responsibilities are geared toward event planning in these respective categories. Additionally, our Concentration Representatives act as points of contact for students seeking guidance in concentration-specific course selection or career exploration. Truly, the diversity of the events we plan is reflective of the diversity of our executive board. Consequently, the functions of our organization may benefit all members regardless of their specific interests.

This document serves to outline, in complete detail, the ways in which our chapter of Material Advantage has pursued the actualization of our mission during the Fall 2016 and Spring 2017 semesters. The events and activities that we have organized and executed will demonstrate how our chapter has satisfied the enumerated Excellence Criteria and why, as a consequence, we should seriously be considered for the 2016-2017 Material Advantage Chapter of Excellence Award.

Fall 2016-Spring 2017 Programming Calendar

Date	Event	Category
August 28, 2016	Technical Writing Workshop	Academic
August 30, 2016	Resume Review Workshop	Career Development
August 31, 2016	E-Night	Recruiting/Publicity
September 1, 2016	Internship Panel	Career Development
September 6, 2016	Freshman Class Visit	Recruiting/Publicity
September 8, 2016	Alumni Resume Review	Career Development
September 8, 2016	Alumni Speed Networking	Career Development
September 10, 2016	MatSE Barbeque	Social
September 17, 2016	Curtis Orchard Trip	Social
September 19, 2016	3M Info Session	Career Development
September 20, 2016	Clorox Info Session	Career Development
September 24, 2016	I-Help Campus Service	Service
September 29, 2016	Trivia Night	Social
September 30, 2016	MA Apartment Tour	Social
October 6, 2016	Mock Interview Workshop	Career Development
October 13, 2016	Steel Dynamicsd Info Session	Career Development
October 15, 2016	BMES-MA Capture the Flag	Social
October 15, 2016	Destination Technology (DT)	Service/Outreach
October 19, 2016	MA Tour of Establishments	Social
October 22-25, 2016	MS&T 2016	Career/Chapter Development
November 2, 2016	Tesla Info Session	Career Development
November 17, 2016	MA Friendsgiving Potluck	Social
December 3, 2016	MatSE Course Feedback	Departmental
December 8, 2016	Finals Review Session	Academic
January 22, 2017	Origin Workshop	Academic
February 1, 2017	Ice Skating	Social
February 13-14, 2017	Ceramic Rose Sale	Fundraising
February 15, 2017	Alumnus Speaker Kyle Wilcoxon	Career Development

February 15, 2017	Undergraduate Research Panel	Career Development
February 17-25, 2017	E-Week Games	Social
February 18, 2017	Introduce a Girl to Engineering Day	Outreach
March 10-11, 2017	Engineering Open House/DT	Service/Outreach/Fundraising
April 12, 2017	Tour of Establishments	Social
April 13, 2017	Executive Board Elections	Chapter Development
April 18, 2017	MA Auction	Fundraising
April 29, 2017	Alumni Board Meeting	Departmental
April 29, 2017	MatSE Course Feedback	Departmental
May 1, 2017	Grad School Panel	Career Development
May 6, 2017	Student Faculty Volleyball	Social
May 6, 2017	Keane-Kriven Dinner	Social
May 7, 2017	Student-Faculty Basketball	Social

1. Programming

The following section serves as a chronological summary of the events and activities organized by MA during the 2016-2017 academic year. Further event details are provided in the following sections of this document.

August-September 2016

Our primary goals at the start of the fall semester are to: 1. recruit new members to MA and 2. to prepare MatSE students for the upcoming fall career fairs. With regards to the first goal, we believe reaching out to the freshman class is the best way to secure continued involvement of MatSE students in our organization. Therefore, we planned a number of events early on that would inform freshman of the existence of our organization and give them opportunities to meet members of MA in relaxed, social settings. We began recruiting freshman by having an informational booth at the College of Engineering's E-Night, an info fair of all engineering clubs on campus. We disseminated pamphlets to freshman and spoke to them about the kinds of events and opportunities associated with a Material Advantage membership. We also took this opportunity to collect contact information from interested students so that we could inform them of upcoming events by way of bi-weekly emailed newsletters. We followed up these efforts by sending current MA members to introductory freshman MatSE lectures to talk about the organization and its upcoming events. Specifically, we invited new students to join us for free food at our MatSE BBQ event and at our first general meeting. Other social events hosted in September included a trip to a local apple orchard, a trivia night, and an apartment crawl. Each event served as an opportunity for freshman to meet and interact with other students involved with MA. Additionally, these events were also opportunities for freshman to spend time with their mentors assigned by our mentorship program (discussed in detail later).

With engineering career fairs falling on September 7-8 and 19-20, we also focused our early planning energies on creating events that would prepare MatSE students for interaction with recruiters at career fair booths or at company info sessions. Our chapter hosted two separate resume reviews, a student-run and an alumni-run review. These events allowed students to update their resumes prior to the career fairs. For freshman students, these workshops gave them the opportunity to build new resumes from the ground up. We further utilized our MatSE alumni by organizing a speed networking event where students were able to talk with alumni about their work and experiences over dinner. During the weeks of the career fairs, our Professional Chair set up informational sessions with companies, such as 3M and Clorox, that were on campus recruiting specifically for students of material science and engineering. Because a majority of the MatSE students attending the fall career fairs were seeking internship positions for the summer of 2017, MA also hosted an internship panel. This student panel shared their 2016 summer internship experiences and answered questions from the audience pertaining to securing a summer internship.

Early in the semester we also hosted a technical writing workshop and we participated in a campus-wide service event. The prior was an event hosted by MatSE seniors who gave a presentation about technical writing to an audience of sophomores and juniors taking their first MatSE laboratory course for advanced composition credit. The latter was an event called I-Help organized by the university in which student organizations such as MA had the opportunity to serve the Champaign-Urbana communities. This year, volunteers from MA were tasked with the setup of an "Outdoorsman Expo" at Champaign's Fluid Events Center.

October 2016

With the career fairs now in the past and interviews in full swing, MA took the initiative to organize a mock interview event in which students could practice answering a variety of typical and atypical interview

questions. Food was provided to students who attended in hopes of strengthening their ability to answer both behavioral and technical questions.

October was also marked by more social events such as a game of capture the flag played between members of MA and the Biomedical Engineering Society (BMES). We also hosted our Fall 2016 MatSE Tour of Establishments (Barcrawl) on October 19th. This is an event we host every semester to give our 21 and older MatSE students the opportunity to spend a night on the town with friends otherwise only seen in lectures or discussions.

On October 15th, several of our members also participated in a K-12 outreach event in Peoria, IL called Destination Technology (DT). This event, hosted by Caterpillar, aims to teach engineering principles to middle school students. Representatives of MA led a hands-on water filtration presentation/activity for 6th-8th graders at Calvin Coolidge Middle School during this year's event.

At the end of October, 12 members from our MA chapter flew out to Salt Lake City, Utah to attend the 2016 Materials Science and Technology Conference. At the conference we were able to hear talks about ground breaking work in all disciplines of materials science. Moreover, we met with MA chapters from other universities to discuss ways in which we could improve our day to day function as a social and professional engineering organization. Additionally, our chapter had members participate in the student speaking, mug drop, and disc toss competitions. Our Vice President Michael Hu was responsible for making the mugs that took 1st and 2nd place in this year's mug drop competition. A mug designed by Elisabeth Lang also placed in the aesthetic mug category.



UIUC Chapter of Material Advantage at MS&T 2016 in Salt Lake City, UT

November-December 2016

In November, we organized an informational session with Tesla Automotive for students interested in pursuing an internship or a co-op with the company. Before Thanksgiving break, MA also hosted a "Friendsgiving" Potluck event in which students came together to share a home-cooked Thanksgiving feast. At the end of the fall semester, Material Advantage hosted a course feedback session in which MatSE students could eat pizza as they voiced their comments, critiques, and concerns about the fall MatSE curriculum. The feedback from this session was directly presented, in meeting, to the MatSE department's Chief Advisor and

Department Head. Lastly, MA organized a student-run finals review session to help students prepare for final exams.

January-March 2017

We kicked off the spring semester with an OriginLab workshop to teach students in MSE 404 and MSE 308 labs the basics of this data analysis software. As had been done in previous years, MA hosted an ice skating social event in February. We sponsored everyone's admission and skate rental fees at the campus ice rink so that students could get together to catch up after a long winter break. On Valentine's Day weekend MA and Keramos teamed up to host a ceramic rose fundraiser. Students sculpted, fired, and glazed ceramic roses which were sold for profit in our student union. Our February general meeting consisted of a talk with an alumnus Kyle Wilcoxon and an undergraduate research panel. Kyle joined us via Google Hangouts for a live webchat where he talked about his academic and professional experiences. After his talk, a panel of students gave a lecture in which they each presented a powerpoint slide pertaining their respective undergraduate research groups. This panel afforded younger students a greater awareness of the MatSE research opportunities available on campus.

At the end of February, MA participated in a week-long engineering olympic games competition against teams of students from other engineering organizations. During this week, MA also participated in Introduce a Girl to Engineering Day, an outreach event targeting high school girls interested in STEM. The event was hosted by the Society of Women Engineers and members of MA gave a talk/demonstration on shape memory alloys and hydrophobic materials.

On the weekend of March 10th and 11th, students in the MatSE department participated in Engineering Open House (EOH), a college-wide engineering outreach event in which students from all engineering majors and student organizations organize talks, demonstrations, and activities to engage the curiosity and creativity of middle school and high school students visiting from all over the state.. MA worked closely with the MatSE department to plan the logistics of exhibits and activities hosted by material science students. Once again we participated in Destination Technology and gave exhibit tours to groups of middle school kids from Peoria. Our organization also used EOH as a fundraising opportunity. We sold cotton candy while explaining the material science behind the melting, extrusion, and crystallization of sugar.

April-May 2017

Executive board elections took place at our April general meeting. April was also a month of fundraising. Our treasurer organized a MatSE auction that allowed students to bid on goods, services, and activities generously donated to us by fellow MA members, MatSE faculty, and local businesses.

The semester was concluded with another course feedback session and social events for MatSE students and faculty. The week before finals, MA organized a volleyball and basketball game between students and professors. Additionally, we worked with Professors Keane and Kriven to plan a dinner at their home on May 6th. We also held a Grad School Panel event where students could learn about graduate school applications and admissions from students who had recently been through the process.

Finally, MA sent members to meet with the MatSE Alumni Board over lunch to discuss ways in which we could strengthen the bridge of communication between alumni and students so that alumni guidance could be made more readily available to students seeking academic or professional advice.

2. Career Development

As seen from our event calendar and the *Programming* section of this document, our chapter of MA worked hard during the career fair seasons to plan events that would help our student constituents prepare for the recruiting and interview processes. Specifically, we aimed to host events that would provide our

underclassmen the resources needed to set the foundation for a strong resume. Our earlier student run resume review session enabled younger students to discuss their resumes in a food-filled, casual setting. For new students with little professional experience, meeting with counselors at the Engineering Career Services office or with veteran alumni can be an intimidating prospect. Our initial resume review allowed them to receive advice in a more relaxed, peer-to-peer environment. Students could then go to our alumni resume review with greater confidence after having already met with MA members.



Executive board members Anisa, Kyle, and Dustin leading a peer-to-peer resume review session.

This year our chapter of MA made a concerted effort to utilize our alumni as a resource for students seeking career advice. In addition to the fall alumni resume review and speed networking events, we worked with the MatSE department to reach out to alumni interested in speaking at our general meetings. As mentioned, we were able to get alumnus Kyle Wilcoxon to speak at our February general meeting about his experience as a brand marketer and product developer with Conagra Brands. By using Google Hangouts, we were able to hold a real time discussion with Kyle where students could interact with him by asking questions. The insight into the professional world that Kyle was able to provide was so well received that we decided to host another alumnus speaker, Julia Benson, at our March general meeting. Julia was a more recent graduate from UIUC who has experience working in healthcare making medical devices with Boston Scientific. She offered a unique perspective on making the decision between industry and graduate school after undergrad. Our communication with these alumni during the school year prompted an ongoing email discussion with the alumni board and the MatSE department about how our chapter could more easily contact alumni. We were able to continue this discussion in the spring when several of our outgoing and incoming executive board members attended the MatSE Alumni board meeting to brainstorm ways in which our ongoing alumni communications could be further strengthened.

Our student members also constitute a valuable academic and professional resource. With this realization, we sought to organize a number of informational panels in which students could speak and discuss with other students about topics such as internships, undergraduate research, and graduate school applications. The internship panel we hosted was made up of six students who worked internships during the summer of 2016 with companies such as Tesla Motors, Chevron, Steel Dynamics, Cardinal Health, Texas Instruments, and 3M. Pizza was provided to all in attendance while the panelists spoke about their respective positions, application and interview processes, and relocation to new towns and cities. Not only were the panelists able to share useful information with students interested in internships with these companies, they

were able to share company contact information with our executive board. As a result, our Professional Chair Kyle McKillop was able to schedule a number of company information sessions including 3M, Clorox, Steel Dynamics, and Tesla Motors. Each of these companies gave technical talks about their products or technologies in the context of material science. Such events were valuable for students seeking more intimate interaction with company recruiters that would not be possible among the hustle and bustle of the career fair floor.



Devon, Monica, Chris, Mauna, Brendan, and Kyle lead an informational internship panel

Our second panel event was an undergraduate research panel. As previously mentioned, members of this panel gave a presentation on a variety of research topics ranging from polymeric composites to metallic superalloys to computational materials modeling. Members of the audience learned about the opportunities available in research groups on campus and how to take advantage of such opportunities. This event was particularly valuable for students in search of research experiences that would make them more competitive in the graduate school application process. Our final student panel, catered to this student population as well. We hosted a graduate school panel at the end of semester. The panel was comprised of a number of senior MatSE students who had been accepted into MatSE, ChemE, ECE, and BioE PhD programs at schools such as UCSB, Berkeley, Stanford, Washington-Seattle, and UIUC. They spoke on topics such as application deadlines, personal statements, letters of recommendation, and campus visits. As with the other panel events, pizza and beverages were provided to all in attendance.

Our mock interview session in October also did well to use the experience of current students to prepare others for success in behavioral and technical interviews. Four interviewers were each assigned a specific persona to emulate ranging from cold and standoffish to warm and talkative. Members looking to practice their interview skills would cycle through the interviewers and field a variety of typical and atypical interview questions. Interviewers took notes during their interaction with each interviewee and presented a critique to each participant at the end of the event. The discussion that ensued between interviewer and interviewee allowed for greater interviewee self-awareness of their strengths and weaknesses.

3. Service

This year we worked closely with Calvin Coolidge Middle School in Peoria, IL in an outreach program called Destination Technology (DT). This program sponsored by Caterpillar (based in Peoria) aims to expose middle school children to STEM by way of interactive demonstrations and activities. In October, two members of Material Advantage drove to Peoria to lead a water filtration lecture and activity for a group of about fifty 6th through 8th graders. We gave a brief presentation about the importance of clean drinking water and current methods for small scale and large scale water purification. We introduced the concept of a homemade water filter comprised of a 2L soda bottle filled with layered cotton, sand, and gravel. The activity that followed gave teams of students the chance to build their own 2L-bottle filtration systems from an assortment of materials provided by MA. Each team's filter functionality was tested by passing dirty water through them. The activity/competition was followed by a worksheet that allowed students to reflect on the implications of the activity in which they had participated.

Our chapter of MA teamed up with kids from Calvin Coolidge Middle School once again in the spring. Four MA members volunteered to act as EOH tour guides for kids. Guides spent the day taking groups of students around the engineering campus to view the exhibits set up by various engineering majors and student organizations. We also provided catered lunch for the students to keep their minds primed toward learning and inquiry. As previously mentioned, MA also played a major role in MatSE exhibit planning for EOH. As a requirement for the MSE 183 class, all MatSE freshman were responsible for presenting an exhibit that demonstrated a material science concept. It was our responsibility as a material science student organization to decorate the MatSE building in preparation for the weekend's events. We also handled the arrangement of exhibits within the building. Moreover, each of concentration representatives presented their own exhibits on projects pertaining to their specialty. MA also designed the EOH t-shirts that were worn by all staff and exhibitors. Additionally, several members of MA came together to write, direct, and record a MatSE-themed educational movie screened periodically during the EOH festivities.

Chris (left) and Devon (right) inspiring the youth with their EOH exhibits.



Another outreach event in which MA participated was Introduce a Girl to Engineering Day (IGED). This event, hosted by the Society of Women Engineers, invited high school girls interested in STEM to spend a Saturday at the University of Illinois to learn about our College of Engineering and the different majors contained within. For a part of the girls' day, members of MA were able to speak with rotating group of students in an effort to better their understanding of the engineering concepts that MatSE encompasses. To demonstrate such concepts students were allowed to interact with nitinol shape memory alloys and hydrophobic sands. Members of MA also answered questions from the audience in an effort to give the girls a better idea of what it is like being a MatSE student at UIUC. Overall, this event served to promote material science among students who were still exploring a higher education in engineering.

In addition to these outreach events, several members of MA also participated in I-Help, a campus-wide day of service hosted by the university. Volunteers from MA were assigned to the Champaign Fluid Events Center to help with the setup of an Outdoorsman Expo. Students spent the day helping set up booths, chairs, and tables. Others worked in the concession stand during the event. Such a service event gave MA members a greater appreciation of the events occurring in the greater Champaign community.

4. Social Activities

We kicked off the academic year with a welcome MatSE BBQ. Not only did this event serve an opportunity for new freshman to meet MA members, but also as an opportunity for old MatSE friends to see each other after a summer apart. MA reserved space at a local park and spent the sunny, fall afternoon grilling burgers and hotdogs. Students enjoyed the opportunity to catch up over frisbee, basketball, and volleyball. We also capitalized on the fall weather by planning a trip to Curtis Orchard, a local apple orchard/pumpkin patch in nearby Savoy. A group of MatSEs spent the day there picking apples and perusing the orchard's vast selection of homemade treats (especially the cinnamon apple donuts). At the end of September, MA also organized a trivia night where students could test their knowledge of UIUC material science trivia.



MatSE students, new and old, enjoying a BBQ in Illini Grove (above). MA members on the famous Curtis Orchard "Big Chair" (right).

Material Advantage also organized one barcrawl each semester where students who were 21 and older could get together to tour all of the fine establishments that the University of Illinois has to offer. This year we used the planning of these events as an opportunity to hold a t-shirt design contest for the barcrawl shirts. While we thoroughly enjoy the company of our fellow MatSEs, we also thought it important to interact with students from other engineering societies. Last year, we played laser tag with chemical engineers. This year we coordinated a game of capture the flag with members of the Biomedical Engineering Society. The final social event of the fall semester fell right before Thanksgiving break on November 17th. President Andres Velarde hosted a Thanksgiving Dinner/potluck at his apartment, inviting all members of MA to bring and share food and friendship before our week of vacation.



Spring 2017 MatSE Barcrawl (above)



MatSE Thanksgiving Dinner (above)

As previously discussed, MA hosted an ice skating night on February 1st at the UIUC ice arena. We payed for everyone's admission and skate rentals and enjoyed a night of skating, sliding, and falling (depending on the skill level of the student). Near the end of February, teams of MA students participated in the College of Engineering's E-Week games. We went head to head against students from other engineering societies in feats of mental prowess and physical strength. Competitions included Star Wars trivia, scavenger hunts, and long distance races.

The end of the spring semester was marked by several events that sought to bring students and faculty together. The MatSE auction organized by our chapter treasurer gave students the opportunity to participate in events/activities with professors such as dessert tasting with Shen Dillon or barbecuing at Robert Maass's house. Each year we also organize student faculty volleyball and basketball games where students can seek retribution for lengthy homeworks or difficult exams with well placed spikes or a glass shattering dunks. As has been tradition for the past 22 years, MA once again worked with Professors Trudy Kriven and Richard Keane to have students attend go to their home for an dinner and drinks this spring.



MatSE students at the 23rd Annual Keane-Kriven Dinner

Overall, the social events that our chapter of Material Advantage hosts during the fall and spring semesters are an excellent opportunity for MatSE students to form friendships and memories that will transcend their time here at the University of Illinois. Our efforts to organize social events in which students and faculty can come together continue to foster a supportive MatSE community that is warm and welcoming, even when the thought of that upcoming midterm is not.

5. Chapter Management

Executive Board Positions

<i>Position Title</i>	<i>Role(s)</i>
<i>President</i>	Oversees all events; Communicates with department; Leads general and executive board meetings
<i>Vice President</i>	Assistant to President; Covers for President in his/her absence
<i>Treasurer</i>	Handles fundraising events and budgets bank accounts; Purchases food for all events; Collects dues; Assists MS&T trip planning
<i>Keramos Liaison</i>	Facilitates in planning joint MA-Keramos events
<i>Secretary</i>	Writes newsletters to update members on upcoming events; Submits event space reservations
<i>Webmaster</i>	Updates chapter website with events and contact information
<i>EOH Director</i>	Leads organization of Engineering Open House
<i>Service Chair</i>	Leads planning of service events
<i>Professional Chair</i>	Leads career development events; Point of contact for alumni and companies
<i>Social Chair</i>	Leads planning of social events
<i>Metals Representative</i>	"Concentration Reps" provide knowledge base for each area; Assist students in scheduling classes and planning for careers in each area; Design and present exhibits at EOH
<i>Ceramics Representative</i>	
<i>Polymers Representative</i>	
<i>Electronic Materials Representative</i>	
<i>Biomaterials Representative</i>	
<i>Freshman Representative</i>	Publicity to freshman student body; Recruiting of new members; Represents classmates in scheduling and event planning

Membership

Material Advantage events were advertised to all MatSE students, even non-members, by way of the departmental mailing list. Starting in October, only members who had paid dues were eligible to get food at our general meetings. Membership also allowed discounts on purchases of MatSE Engineering Open House and barcrawl t-shirts. Membership was verified at meetings using a programmed spreadsheet into which attendees would enter their school identification handles. Upon payment of membership dues, students were required to email proof of payment to the treasurer who would then update the attendance spreadsheet's members list.

Recruiting

We began our recruiting efforts by sending out an email to all new freshman students through the department's mailing list. The message contained information about our chapter, our mission, and the events we are responsible for hosting. Moreover, it informed readers of our upperclassman mentorship program. During the first week of school, freshmen were invited to visit our informational booth at E-Night. The chapter's presence in their lives was reiterated in visits from MA members to freshman level introductory MatSE courses such as MSE 182 and ENG 100. During these visits, members reaffirmed our chapter mission and invited students to sign up for our Material Advantage chapter mailing list. Over seventy freshman signed up for our mailing list and sixty freshman were assigned to upperclassmen mentors.

Mentorship Program.

The mentorship program was a staple of the Keramos chapter in the MatSE Department until it was dissolved 4 years ago due to lack of Keramos leadership. We continued the mentorship program this year after it was revived last year. This program served to provide incoming freshmen a source of support and guidance during the transition into college life. Our mentorship program operates under a point system in which mentor/mentee pairs could amass "brownie points" for attending MA events and submitting selfies including both mentor and mentee to the club email. Pairs with the highest score at the end of each month would receive a platter of brownies as their award. Certain events were designed to attract groups of mentors and mentees (e.g. trivia night). We hope to continue the recently-revived mentorship program to form a closely-knit MA community that integrates members both new and old.

Elections

Elections were held in mid-April to decide executive board members for the following fall semester. Candidates submitted a single PowerPoint slide for up to three different board positions to be shown during the elections. All members were welcomed to attend the election. Candidates had 2 minutes to present their case for running for a position. Competing candidates were removed from the room. Candidates who could not be present due to scheduling conflicts could submit a 2 minute video recording of their case or have someone else speak on their behalf. Two minutes of questioning from the audience followed each candidate's speech. After all candidates for certain positions had presented, all candidates were removed from the room and the audience discussed the candidates. Once candidates had been discussed to the satisfaction of the audience, the audience voted anonymously. Candidates were limited to holding a single position, unless there were no other available candidates running for one of the other positions.

Before the semester ended, transition meetings were arranged between all current board members with corresponding new board members. At these meetings, the old board members discussed all responsibilities of the position with the new members and handed them an officer report containing a comprehensive description and directions for successful position performance. These transition meetings and officer reports ensured improvement and excellence in programming and planning for the following year.

Finances

The treasurer was responsible for all financial issues. He kept track of all expenses and reimbursements to members who had contributed to the costs of MA events. Our chapter maintains a non-profit bank account for ease of transactions, and a registered student organization account for when we are provided with financial assistance through the university. Major expenses include travel and lodging to the MS&T conference and providing food for each event. Funding comes from both the department and fundraising efforts such as the MatSE Auction and cotton candy sales at EOH. Our chapter raised approximately \$1,400 this year with additional funding by the department. This year, prior to each event, the treasurer budgets a certain amount of our funds with foresight into spending sustainability. All purchases suggested by the treasurer required approval by the chapter president.

General Management and Record Keeping

All records were kept in a shared Google Drive folder available to all executive board members. Most documents were available to all committee members, such as board contact information, the projected timeline for events and notes appended to each board meeting agenda. The meeting agenda was especially made available to all board members in order to allow additions to the discussion topics such as event proposals or brainstorming sessions. Important documents that covered the financial details of the club were available only to the President and Treasurer. All room requests for events were recorded in a spreadsheet on the Drive for the secretary to complete and submit to the university clerks. At the beginning of each semester, each class and concentration representative was responsible for filling out a spreadsheet detailing all dates and times for pertinent midterms, such that events could be planned to maximize attendance of all students.

Publicity

The secretary was responsible for emailing the members on the mailing list regarding upcoming MA events and opportunities, while the webmasters routinely updated the website with all of this information. Emails to our members were sent out on an *ad hoc* timeline depending on how many event details were available. Typically event reminders were sent out bi-weekly. Additional emails would be sent as reminders the day before events. Reminders for more important events such as the alumni resume review were sent out to students through the MatSE department secretary.

Participation and Success

This year's events maintained a regular audience. At the meetings where attendance was recorded, such as general meeting and tech talks, an average of 25 members attended. Conscious action was taken to make each event hosted by our chapter meaningful and well publicized. Our chapter also successfully introduced novel events like the MatSE Friendsgiving, the undergraduate research panel, and alumni webchats. This year's MA chapter at Illinois completed a year filled with quality events that served to actualize our mission. We hope that such event planning will attract a continuing contingency of MatSE students and prime the following generation of MA for greater success, structure, and growth.

Letter of Support

It is my pleasure to write a letter of support on behalf of the University of Illinois Material Advantage Chapter. The incoming freshmen receive two welcome letters upon their acceptance to the Materials Science and Engineering Department—one from the department and one from our Materials Advantage Chapter—establishing the central role of MA within our undergraduate program. In my third year as the faculty advisor for this chapter, I continue to be impressed by the organization and degree of involvement that these undergraduates have taken upon themselves to improve their own undergraduate experiences, to prepare themselves and their peers for professional roles and to improve the department for those who follow them. I believe that the pages that follow document this level of dedication, diversity and success without need of additional accolades, but I am happy to elaborate.

The activities and contributions of the University of Illinois Materials Advantage Chapter can be divided into several categories, including: programming, service, career development, social and chapter management. I will address each individually.

Programming: This chapter runs a highly diverse and active program capable of engaging students throughout the program from freshman to seniors, domestic to international students and those interested in industrial and academic careers. This high level of programming not only takes a tremendous amount of work, but also great leadership and strong organizational infrastructure—both of which are key attributes of this chapter. For example, the long standing tradition of the annual Student-Faculty Auction complements more recent additions such as the MatSE research panel, which was designed to address the growing interest in undergraduate research opportunities within the department.

Service: Service is an important component of any student organization, necessary to engage undergraduates in efforts beyond their own immediate benefit and vital to the development of well rounded team members for the professional world. The many service activities of the chapter are well documented, but I would also like to highlight their service to the department. Materials Advantage is the primary liaison between the undergraduate population and the Materials Science and Engineering Department at the University of Illinois. This is a role that they take very seriously, providing constructive feedback about specific classes and professors as well as broader curriculum changes.

Career development: The students have done a wonderful job maintaining a diverse program of career development activities for the undergraduate population and are always striving to improve this. This year, particular emphasis was placed on interactions with department alumni.

Social: This is arguably one of the most fun aspects of the chapter that truly brings the student body together in a way that few other opportunities can.

Chapter management: I believe that this speaks for itself in the context of the other categories. It would not be possible to have such a high achieving chapter without excellent organization and management as I've already addressed.

I am very proud to be associated with our Materials Advantage chapter as I believe they make a tremendous impact on our department and will only continue to do so with unwavering support from our department.

Sincerely,

Jessica A. Krogstad

Assistant Professor & Materials Advantage Faculty Advisor