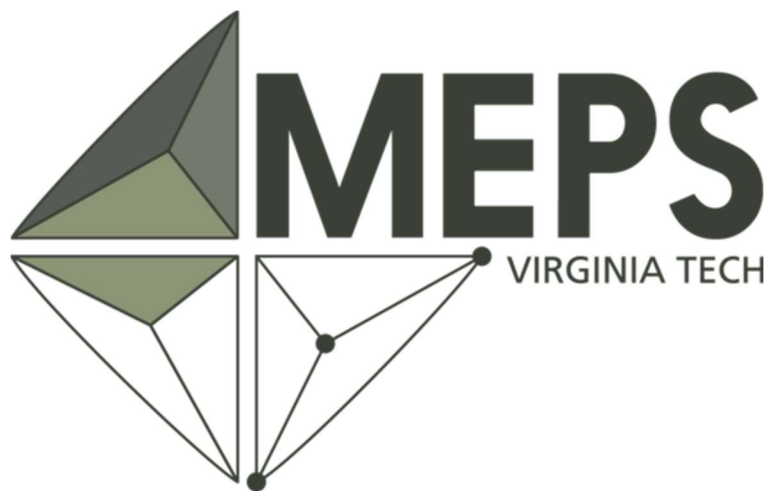




Virginia Tech Materials Advantage Chapter (Materials Engineering Professional Society)



2022-2023 Chapter of Excellence Application
Submitted to ASM International on May 11, 2023

Prepared By: Joshua Buontempo, President
Charles Mack, Vice President

Faculty Advisor: Dr. Alan Druschitz

Academic Advisor: Ms. Michelle Czamanske



COLLEGE OF ENGINEERING
MATERIALS SCIENCE
AND ENGINEERING
VIRGINIA TECH

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2022 - 2023 Chapter Officers



Joshua Buontempo
President



Charlie Mack
Vice President



Jessica Barbish
Treasurer



Nate Suggs
Secretary



Jo Aguilar
Outreach Chair



Hannah Blaha
Publicity Chair



Justin Grubbs
Social Chair



Vincenzo De Altin Popiolek
Professional Chair



Christopher Phillips
SEC Representative



Camden Holloway
Research Chair



**NO IMAGE
AVAILABLE**

Rachel Tschetter
Sophomore Rep.

Chapter Overview

Highlights

- 18 Students attended the October 2022 MS&T Conference in Pittsburgh, PA
- MEPS hosted 22 Service Events
- MEPS hosted 9 Career Development Events
- MEPS hosted 12 Social Events
- MEPS hosted 7 Technical Programming Events
- 1 Student won the Undergraduate Student Speaking Competition at the MS&T Conference
- 1 Student won the Ceramic Disk Competition at the MS&T Conference
- 2 Students received scholarships at the MS&T Conference
- Helped raise funding for the MSE department through the VT Giving Day event. Won the MSE department the \$25,000 prize for highest percentage increase in donors.
- 16 students received \$15,250 in scholarships at the VT-FIRE/AFS Piedmont Chapter Joint Meeting.
- 1 student received a scholarship at the FEF-CIC (Foundry Educational Foundation-College Industry Conference) in Chicago, IL
- 2 students won the undergraduate presentation competition at AISTech 2023 in Detroit, MI

Summary

The Materials Engineering Professional Society (MEPS) is the official Materials Advantage Chapter at Virginia Tech (VT). We are a student-run umbrella organization that supports 3 other student-run organizations: The American Nuclear Society (ANS), The American Foundry Society (AFS), the American Ceramics Society (ACerS) Keramos Chapter, and the Blacksmithing Club. MEPS works to benefit all Materials Science and Engineering (MSE) students through academic, professional, and social events.

MEPS is currently run by a board of 11 students consisting of the President, Vice President, Treasurer, Secretary, Outreach Chair, Publicity Chair, Social Chair, Professional Chair, Student Engineers' Council (SEC) Representative, Research Chair, and a Sophomore Representative. MEPS also works with the student leaders of our umbrella organizations. The organization has a main faculty advisor (Professor Alan Druschitz) and an academic advisor (Ms. Michelle Czamanske).

During the 2022-2023 academic year, MEPS continued to rebuild the organization in the aftermath of COVID-19. By the end of the spring semester, the organization is once again running at full capacity, and we are continuing to improve. One of our main accomplishments of the academic year was supporting 18 students to attend the Materials Science and Technology (MS&T) 2022 conference in Pittsburgh, PA. At the conference, we had several students win competitions or receive recognition for their outstanding work during their summer internships.

Rachel Tschetter (Sophomore Representative) was nominated for the Virginia Tech Student Organization Rising Star Award. "The Rising Star Award recognizes a non-graduating student who demonstrates great potential as a future leader. This student has taken initiative within the organization, their membership has made a positive impact on the organization, and they are recognized as someone with the capacity to become a leader in the organization."

Charles Mack (Vice President) was nominated for the Virginia Tech Student Organization Outstanding Undergraduate Student Leader of the Year Award. "The Outstanding Undergraduate Student Leader of the Year Award celebrates an undergraduate student who is committed to their role as a leader and contributes to the success of their organization(s); makes a true effort to mentor and support their peers, and approaches the student involvement experience with innovation and creativity."

This report summarizes the management structure of MEPS and provides a detailed list of all the technical, career development, social, and service events that MEPS hosted during the 2022-2023 academic year.

2022-2023 Academic Calendar of Events

Fall 2022

August 19	College of Engineering Social	Service
August 20	OShow	Service
August 31	MSE Picnic	Social
September 1-2	Fall Open House	Service
September 2	Gobblerfest	Service
September 2	HOKIE Grad Alumni Melt	Service
September 10	MSE Tailgate with Alumni	Social
September 27	Explore Engineering Week	Service
September 27	Kennametal Inc. Info Sessions	Technical
September 29	MSE Lab Tours for Freshman Students	Service
October 1	Open Foundry Day	Service
October 9-11	MS&T Conference	Career
October 26	Research Seminar	Career
November 4	Laser Tag & Bowling Social Event	Social
November 8	Arc Energy Nuclear Power Seminar	Technical
November 9	Resume Workshop	Career
November 12-13	Fall Open House	Service
November 12	Chilli Cookoff with ANS	Social
November 16	MEPS General Body Meeting	Technical
November 16	Community Outreach Event - Foundry in a Box	Service
November 16-17	Foundry Educational Foundation-College Industry Conference (FEF-CIC)	Career
December 8	MSE Potluck and Professor Auction	Social
December 8	Hokie Bird Fundraiser	Social
December 12	MSE 2044 Final Review Session	Technical

Spring 2023

January 21	Officer Social Hike	Social
February 7	Wolfspeed Info Session	Technical
February 10	Super Bowl Chili Cookoff	Social
February 11	Rose Fundraiser at Open Foundry Day	Social
February 11	Boy Scouts of America Nuclear Science Badge	Service
February 14-17	Blacksburg Middle School	Service
February 15-16	Giving Day	Service
February 16	MEPS General Body Meeting	Technical
February 18	Foundry-In-a-Box	Service
February 21	Graduate Student Seminar	Career
February 22	MSE Career Fair	Career
February 22	VT-FIRE/AFS Piedmont Chapter Joining Meeting	Career
February 24	Karaoke Night	Social
February 27 - March 3	Engineering Week Events	Social
March 15	SEC Major Mixer	Service
March 1-19	Spring Open House	Service
March 21	Women's Panel (Virtual)	Technical
March 22-24	AFS Southeastern Regional Conference	Career
March 27	Engineering Open House	Service
March 27	What is MSE?	Service
March 28	Resume Workshop with ANS	Career
April 1-2	Hokie Focus	Service
April 4	Introduction to LaTeX Seminar	Career
April 12	Visitor Tour (Brian Harrity)	Service
April 13-15	ANS Student Conference	Career
April 14	Bowling Event	Social
April 19	Eastern Montgomery High School	Service
April 19	Visitor Tour (Palmisano Family)	Service
April 19	Hokie for a Day	Service
April 20	Margaret Beeks Elementary School STEM Night	Service
April 22	HOKIE Grad Alumni Melt	Service
April 25-27	AFS Metal Casting Conference	Career
May 7-11	AISTech 2023	Career

Chapter Management

All MEPS officers are required to be registered as Materials Advantage members. All other MSE students are encouraged to join MA to gain access to all the benefits provided through the membership.

Elections and Transitions

The elections for this academic year's (2022-2023) officer positions were held in April of 2022. Similarly, the elections for the next academic year's (2023-2024) officer positions were held in April of 2023. Any MSE Student in good academic standing is eligible to run for any position, and any MSE student in good academic standing is eligible to place their votes for the new officer board.

There was a change in the number and responsibility of the officer positions made available for the 2023-2024 academic year. This year had 11 positions: President, Vice President, Treasurer, Secretary, Outreach Chair, Publicity Chair, Social Chair, Professional Chair, SEC Representative, Research Chair, and Sophomore Representative. Next year will have only 9 positions: President, Vice President, Treasurer, Secretary, Outreach Chair, Publicity Chair, Professional Chair, SEC Representative, and Sophomore Representative. This was done to improve the efficiency of the officers and to more evenly distribute the responsibilities associated with each position. The descriptions of these newly modified positions will be reflected in next year's report.

Any student interested in running for a position gave a short speech answering the following questions: 1) Why do you want to be a MEPS officer? 2) Why do you think you would be a good fit for an officer position? 3) What is your vision for MEPS in the next upcoming year? After all the students presented, a Google form was used for everyone present at the elections to cast their vote. After all the votes were finalized, the new officer positions were announced.

Over the following weeks before the semester ended, the newly elected officers worked with the current officers to learn about their new responsibilities.

Officer Position Descriptions

President: The main point of contact between the chapter, umbrella student organizations, the VT MSE department, and the public. The president is responsible for organizing the MEPS board, the Materials Science and Technology Conference trip, and all chapter events.

Vice President: Supports the President with all events and assists other officers as needed. Responsible for the logistics for the Materials Science and Technology Conference trip.

Treasurer: Oversees all financial responsibilities including assembling a semester budget provided to the department head, documenting all expenditures, and organizing fundraisers.

Secretary: Documents all meeting minutes of the Officer Meetings, maintains records for all MEPS events, and helps organize the end of year Materials Advantage Report.

Outreach Chair: Connects MEPS with the local community through STEM outreach events and local volunteering.

Publicity Chair: Advertises all MEPS sponsored events. Manages the social media (Instagram) and designs fliers posted on the social media.

Social Chair: Builds a sense of community within the organization by organizing social events open to any MSE student and friends.

Professional Chair: Organizes all professional development events. Main point of contact with industry relations and hosts a final exam review session for the sophomore class in the Fall semester.

SEC Representative: Main point of contact with the Student Engineers' Council (SEC) at Virginia Tech. Attends the SEC bi-weekly meetings and relays information concerning SEC events and their available funding applications. Coordinates MEPS participation in the Engineers' Week, hosted by SEC.

Research Chair: Organizes a research seminar for professors to share their research to the student body. Helps students find undergraduate research opportunities.

Sophomore Representative: The main point of contact between MEPS and the sophomore class. Informs the sophomore class concerning all MEPS sponsored events. Works to increase sophomore involvement within the organization.

Chapter Organization Strategies

MEPS utilizes a shared Google calendar to plan all events. This calendar is also shared with the umbrella organizations to avoid scheduling conflicts. MEPS also runs a highly organized Discord Channel available for all MSE students to communicate with each other. This discord is available for current undergraduate students, graduate students, and alumni. There are currently 212 students active in the Discord. Lastly, MEPS uses a shared Google drive to store and organize all files and documents pertaining to the organization.

Improvements for Next Year

One of the main areas of improvement for our organization is to increase the student involvement with MEPS events. The strategy for next year is to better incentivize attendance in MEPS events by offering rewards to students who have a high attendance rate. A potential reward for next year is an official VT MSE hoodie. The other main area for improvement was to refine the responsibilities associated with each officers' position, as described above.

Technical Programming

Kennametal Inc. Info Session (September 27, 2022): Dr. Nixon, a representative from Kennametal Inc. shared information about internship and co-op opportunities with the student body.

Arc Energy Nuclear Power Seminar (November 8, 2022): ANS officers held a seminar with the CEO of Arc Energy who shared about the nuclear industry and the opportunities available.

MEPS General Body Meeting (November 16, 2022): Officers shared tips on how to succeed in their courses as they prepare for final exams. General organizational information was shared such as upcoming events. The students that won the MS&T student competitions were recognized. To conclude the meeting, a blind folded skittle tasting competition was held.

MSE 2044 Final Review Session (December 12, 2022): The MEPS upperclassmen and Professional Chair hosted a final exam review session for the sophomore class. This was the first materials science course that they took and was an opportunity to give back to the underclassmen. This review session an on-going tradition of service (Ut Prosim).

Wolfspeed Info Session (February 7, 2023): Jin Ellington, a representative from Wolfspeed, shared information about the current innovations and opportunities at Wolfspeed to the student body. Wolfspeed specializes in semiconductors and many of the students were very interested in their work.

MEPS General Body Meeting (February 16, 2023): The current officers shared information about the upcoming MEPS events, officer elections, and the MSE Career Fair to the student body.

Women's Panel (Virtual) (March 21, 2023): Faculty Dr. Abby Whittington, and alumni Julia Pimentel, Anna Albert, and Myrissa Maxfield shared about the challenges that they have faced in the workplace and academia as women in STEM. They gave advice on how to navigate a successful career in STEM. This was done virtually and recorded to be made available to all students who were unable to attend.



Career Development

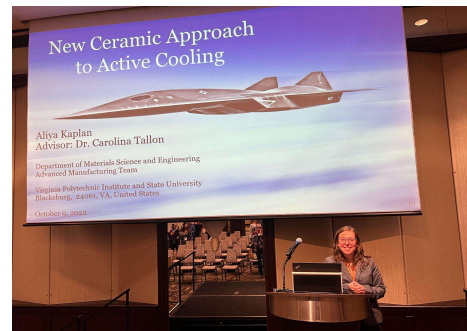
MS&T (October 9-11, 2022): MEPS supported 18 students to attend the 2022 MS&T conference in Pittsburgh, Pennsylvania. This was a great opportunity for our students to network with industry professionals and gain experience in a conference setting. At the conference, we had many students participate in undergraduate student competitions and receive recognition for their outstanding work.



Below is the list of our MS&T awards with brief summaries.

- Material Advantage National Undergraduate Speaking Contest:

- Aliya Kaplan, a junior in Dr. Tallon's research group, won first place in the Material Advantage National Undergraduate Speaking Contest where she presented her research in a New Ceramic Approach to Active Cooling. She competed against 10 undergraduate students who attend schools from across the country.



- Material Advantage Ceramic Disc Golf Contest

- Victoria Rambo won first place in the Material Advantage Ceramic Disc Golf Contest. VT submitted 4 disks in the competition and placed 1st, 2nd, 4th, and 5th overall. This is the 2nd consecutive year that VT won top prize in this competition. Our ceramic disk design team was led by Camden Holloway (junior), and our four throwers were Victoria Rambo (junior), Julia Gunzel (senior), Nate Suggs (junior), and Charles Mack (senior).



- AIST Steel Intern Scholar Award

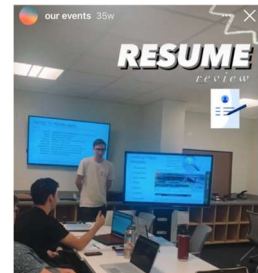
- Cole Manfred and Anna Carnahan were awarded the AIST Steel Intern Scholar Award for their involvement in metallurgical internships this past summer. Mr. Manfred interned at Cleveland Cliffs where he studied the effects of metallurgical additions to advanced high strength steels to combat hydrogen corrosion mechanisms. Mr. Manfred also had the opportunity to share about his experience in the metallurgical industry and the meaningfulness of AIST and their student scholarships. Ms. Carnahan interned at Nucor Steel where she researched and experimented the total oxygen content in clean steel and performed analysis on steel slag chemistry.



Research Seminar (October 26, 2022): The research seminar was hosted by our Research Chair and Vice President. During this event, 5 Virginia Tech MSE professors and some graduate students presented their research and the opportunities that they had available within their lab for undergraduate students. This was to promote undergraduate research and increase involvement outside the classroom.



Resume Workshop (November 11, 2022): A seminar hosted by the Professional Chair and the Engineering Communications Program at Virginia Tech to prepare students by reviewing resumes and practicing elevator pitches.



Graduate Student Seminar (February 21, 2023): A seminar hosted by the Professional Chair and MSE Graduate Student Advisor to inform the undergraduate study body about graduate school: how to apply, the different degrees available at Virginia Tech in MSE, and the Accelerated Master's Program for current juniors.

MSE Career Fair (February 22, 2023): A career fair tailored specifically for MSE students. We had four companies present that were all looking to hire students. The companies were SSAB, Norfolk Naval Shipyard, ATI, and Mueser Rutledge Consulting Engineering. Starting next year, MEPS will be the main organizers of this event.

AFS Southeastern Regional Casting Conference (March 22-24): AFS students competed in the Southeast Regional Casting Conference with the mug shown on the right.



Resume Workshop with ANS (March 28, 2023): A seminar hosted by ANS and the Engineering Communication Program at Virginia Tech to prepare students by reviewing resumes and practicing elevator pitches.



Introduction to Latex Seminar (April 4, 2023): Josh and Charles, the president and vice president, gave a Latex crash course to undergraduate and graduate students. The seminar covered the basic structure of LaTeX, how to write a paper, how to make formula sheets, and how to make a resume. Templates were provided to attendees.

ANS Student Seminar (April 13-15, 2023): Student Conference for the Virginia Tech American Nuclear Society where students networked with other schools and met with industry speakers.

AFS Metal Casting Conference (April 25-27, 2023): Four AFS Students attended the conference.



Foundry Educational Foundation-College Industry Conference (November 16-17, 2022): Five students attended the Foundry Educational Foundation - College Industry Conference in Chicago, IL. AFS student, Sophia Calandra, received a scholarship.

VT-FIRE/AFS Piedmont Chapter Joint Meeting (February 22, 2023): Sixteen students attended the VT-FIRE/AFS Piedmont Chapter Joint Meeting and were awarded \$15,250 in scholarships.

AISTech 2023 (May 7-11, 2023): Anna Carnahan (senior) and Sophia Stivala (senior) won first place in the undergraduate presentation competition at AISTech 2023 in Detroit, MI. Ms. Carnahan and Ms. Stivala presented their senior design project work.

Service

MEPS participated in outreach events, catering to students running from elementary school to current freshman. Officers had the opportunity to share materials science using demos to generate interest in the program.

Campus Activities

College of Engineering Social (August 19, 2022): Officers met and spoke with freshman students, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions.

OShow (August 20, 2022): Officers met and spoke with freshman students, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions.



Fall Open House (September 1-2, 2022 and November 12-13, 2022): Officers met and spoke with current high school seniors, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions about college.

Gobblerfest (September 2, 2022): Officers and MSE students represented their respective clubs and shared information about joining and student involvement.

HOKIE Gold Alumni Ring Melt (September 2, 2022 and April 22, 2023): Donated alumni rings were melted at the foundry and the President of the Class Ring Committee had the honor of casting an ingot of gold. The gold was then added to our gold class rings. Virginia Tech gold class rings contain 0.33 wt% of alumni gold.

Explore Engineering Week (September 27, 2022): Officers represented MSE at this VT College of Engineering event that served as an opportunity for students to learn about the different engineering majors that VT offers.

MSE Lab Tours for Freshman Students (September 29, 2022): Officers gave tours to current freshman students of the Holden labs. Demonstrations of materials science concepts and applications were provided, including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, design and strength of metal domes, and made ice cream for students using liquid

nitrogen. Officers present answered questions about the program and engineering as a whole at Virginia Tech.

Open Foundry Day (October 1, 2023): An AFS event showcasing the VT Foundry to the local community. AFS Officers suited up to pour scratch plates for attendees.

Community Outreach Event - Foundry in a Box (November 16, 2022): AFS Officers shared about materials science and engineering and metallurgical applications. A demonstration of casting a metal coin was provided.



Giving Day (February 15-16, 2023): Officers participated in the College of Engineering giving day by sharing the event on social media with family, friends, and alumni. The MEPS officers were instrumental in promoting the fundraiser, leading to the highest percent increase in first time donors compared to all the other VT Engineering Departments. For this accomplishment the department of Materials Science and Engineering received \$25,000 from the school to be used at the department's discretion. MEPS will receive \$5,000 of this prize money to support future MS&T conferences or other MEPS events.

SEC Major Mixer (March 15, 2023): Officers joined the other colleges of engineering and shared about materials science with current freshman students.

Spring Open House (March 18-19, 2023): Officers met and spoke with current high school seniors, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions about college.

Engineering Open House (March 27, 2023): Officers met and spoke with current high school seniors, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads, grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions about college.

What is MSE? (March 27, 2023): Officers attended a freshman engineering course (ENGE 1984) and shared demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions.

Hokie Focus (April 19, 2023): Officers met and spoke with high school seniors who have not yet accepted admission, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions about college.

K-12 Outreach

Eastern Montgomery High School (October 19, 2022 and April 19, 2023): Officers provided tours of the 1st floor Holden Labs to high school seniors and gave demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions about college. This high school offers a materials science class twice a year that visits our campus to learn about our labs, MSE, and career opportunities.

Boy Scouts of America Nuclear Science Badge (February 11, 2023): MSE / ANS students served as counselors with Boys Scouts, helping them achieve their Nuclear Science Merit Badge. This involved performing experiments, giving lectures, and serving as tour guides for multiple radiation labs on campus.

Blacksburg Middle School (February 14, 17, and 18, 2023): Officers talked to middle school students about materials science and applications. Officers gave demonstrations using the following: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers talked about their interests and applications and answered general questions about engineering and being a college student. On the 18th, AFS officers used the portable foundry demonstration (Foundry in a Box) to showcase metal casting.



Visitor Tour (Brian Harrity) (April 12, 2023): An officer gave a tour of the 1st floor Holden Labs to Brian Harrity, a senior in high school. The officers answered various questions about the MSE program, college, and campus activists.

Visitor Tour (Palmisano Family) (April 19, 2023): An officer gave a tour of the 1st floor Holden Labs to Palmisano family. The officers answered various questions about the MSE program, college, and campus activists.

Hokie for a Day (April 19, 2023): Officers met and spoke with current high school seniors, giving demonstrations of materials science concepts and applications including: composite materials (airplane foil), shape memory alloy, index of refraction (hydrogel polymer beads), grain boundaries, and design and strength of metal domes. Officers answered questions about the program and other general questions about college.

Margaret Beeks Elementary School STEM Night (April 20, 2023): A partnered event with MEPS and AFS to share about materials science with elementary school students. MEPS Officers gave a demo of a non-Newtonian fluid (Oobleck) and AFS Officers gave a demonstration of casting a metal coin.

Social Activities

Events for students to decompress from homework and studying throughout the semester hosted by the Officers and Officers from ANS and AFS. These events were also an opportunity for students to meet and hangout to help construct a sense of community.

MSE Picnic (August 31, 2022): A welcome back picnic for returning students and faculty. This event was an opportunity for students and faculty to meet our new department head and enjoy food and conversations.

MSE Tailgate with Alumni (September 10, 2022): A catered tailgate event for alumni, students, and faculty before the Boston College vs. Virginia Tech football game (GO HOKIES)! The alumni were given tours of the newly renovated Holden building and the 3 new floors of labs. Students and faculty enjoyed lawn games, food, and live music.

Laser Tag & Bowling Social Event (November 4, 2022): An ANS event where students got to spend time with each other playing laser tag, bowling, and arcade games.

Chili Cookoff with ANS (November 12, 2022): MEPS partnered with ANS to host a chili cookoff. There were 7 teams of 2 that participated who prepared a variety of chili. The winners were awarded a \$10 gift card each.

MSE Potluck and Professor Auction (December 8, 2022): An end of semester gathering to celebrate the semester where students and faculty brought something to share. In addition, 5 faculty members auctioned off an event with them as a MEPS fundraiser. The four events were dinner at their house, making mead, axe throwing, and cycling along the Huckleberry Trail.

Hokie Bird Fundraiser (December 8, 2022): A MEPS / AFS sponsored fundraiser where cast Hokie Birds were raffled off to the student body. The Hokie Birds were cast by AFS students, and the proceeds were split between MEPS and AFS.

Officer Social Hike (January 21, 2023): A welcome back to school hike for the officers. The officers hiked Bald Knob in Blacksburg, Virginia for a sunset hike.

Super Bowl Chili Cookoff (February 10, 2023): MEPS hosted a chili cookoff in spirit of the Super Bowl. Four teams participated and brought their chili to share with students. Students voted on their favorite and the winner received a \$15 gift card. Students shared conversations and played Settlers of Catan with our academic advisor.



chili connoisseurs

Rose Fundraiser at Open Foundry Day (February 11, 2023): An AFS event showcasing the Foundry to the local community. AFS Officers suited up to pour scratch plates for Valentine's Day. Cast metal roses were raffled off as a fundraiser.

Karaoke Night (February 24, 2023): A karaoke event hosted by our Social Chair.

Engineering Week Events (February 27 - March 3, 2023): MEPS Officers participated in a team for the SEC Engineering events which included a trivia night and a talent show. Competing engineering organizations participated in these events to win various prizes and for fun. The ANS team won the crowd favorite and judge favorite award for their comedic singing performance.



Bowling Events (April 14, 2023): A bowling event hosted by our Social Chair to help students relax before finals.





May 12, 2023

To: Materials Advantage

RE: Faculty Advisor Letter of Support

It is our pleasure to write this letter of support to be included with the Virginia Tech Materials Advantage Student Chapter annual report for the 2022/23 academic year. Our Chapter President, Joshua Buontempo, and all of the Chapter Officers did an outstanding job coordinating the activities of the various materials engineering and science related professional societies (ASM, TMS, ACerS, AIST, ANS, AFS). Michelle and I had the privilege of continuing the role of faculty/staff advisors and worked with our MA student chapter officers, under the leadership of Josh, to continue to improve and refine the organization and operation of the chapter.

Highlights of our Chapter activities for this year include the following: 1) monthly in-person General Body Meetings, 2) student centered social activities, 3) opportunities to attend technical events and conferences, 4) career development sessions and opportunities to attend events that provided career insight and opportunities, 5) a wide variety of service opportunities, 6) the third annual MSE Department career fair, 7) two Hokie Gold Alumni Ring melts, and 8) our materials engineering and science undergraduate students were awarded over \$29,250 in scholarships during the 2022/23 academic year. Next year, our MA Chapter will be completely responsible for running the MSE Department career fair.

The changes to our officer election process made a few years ago (moving it to earlier in the semester) continued to be very beneficial since it provides the new and old officers plenty of time to get together, talk about how the chapter operates, what is in progress, what needs to be done and, most importantly, how to get things done. This simple change has had a significant impact in producing a smooth transition since the new officers have ready access to the expertise and experience of the past officers. Also, this year's decision to reduce the number of officer positions from 11 to 9 should improve efficiency and more evenly distribute responsibilities.

We hope that you will agree that the Virginia Tech Materials Advantage Student Chapter had an outstanding year and is continuing to demonstrate year-to-year improvement. The Virginia Tech Materials Advantage Chapter has all of the attributes of a Chapter of Excellence since we have student run programming activities that help our students understand the needs and wants of the materials community, career development activities that bring our students to industry and industry to our students, social activities to bring our students together in a relaxing environment, and strong Chapter Management that is fully supported by our Department faculty and staff.

Invent the Future

Sincerely,



Dr. Alan P. Druschitz

Associate Professor of Practice and Eminent Scholar, Department of Materials Science and Engineering

Materials Advantage Chapter Faculty Advisor

Virginia Tech

540-315-5198

adrus@vt.edu

ASM Member No. 020389 (since 1975)

TMS Member No. 435572 (since 2004)

AIST Member No. 124045 (since 2008)

ACerS Member No. 58757 (since 2014)



Michelle Czamanske

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