September 20th
ASM Professional/Student Mixer at Conor O’Neill’s, Ann Arbor

The Annual ASM Professional/Student Mixer Night is set for 6:00 PM on Thursday, September 20, 2018, at Conor O’Neill’s in the heart of downtown Ann Arbor. This is a great event where Chapter Members can meet the up and coming talent in Materials Science from local universities and colleges in a casual environment. It also provides an opportunity for students to interact with professional leaders to discuss the various networking and scholarship opportunities ASM has to offer. Please plan on joining this social event, which provides a unique social opportunity for students and professionals to discuss various career paths as Materials Engineers.

Thank You to Our Student Mixer Sponsors!

AFC-Holcroft offers atmosphere based heat treating equipment, built to the highest standards for quality. An extensive product range includes universal batch systems, mesh/cast link belt furnaces, continuous pusher furnaces, roller hearth and rotary hearth furnaces, walking beam furnaces, austempering systems, atmosphere generators, aluminum processing equipment and more. Recently acquired by the AICHELIN Group, AFC-Holcroft has become a part of the largest provider of atmosphere furnaces worldwide. We are proud of our many decades as Sustaining Members of ASM International and the ASM Detroit Chapter – and are also active in ASM International’s affiliated society ASM HTS which focuses specifically on heat treating. Our staff enjoy meeting other ASM Detroit Chapter participants and appreciate the unique opportunity to talk with students and other members, hearing firsthand from different perspectives while receiving suggestions how we might continue to evolve our industry in ways that are relevant and exciting to the workforce of the future. We invite you to visit our website, www.afc-holcroft.com to learn more about us.

JOY WORKS STUDIO in Ann Arbor, Michigan was founded in 2005 by its proprietor John R. (Chip) Keough, PE, FASM, as a creative outlet for his passions for metal and, particularly, metal castings. Serving as a platform for casting design, product development, research, teaching, and creative, metallurgical endeavors, Joyworks puts a new spin on the continuing development of one of humankind’s oldest professions. Joyworks harnesses the full breadth of technology and works closely with customers to develop the smartest casting designs and prototypes. Specializing in ferrous castings, Joyworks takes pride in shortening the new product development cycle by optimizing the casting design for fit, form, function and cost. Equipped with 200# Inductotherm furnaces and utilizing 3D-printed mold technologies, Joyworks applies the 1800 sq ft studio to craft the highest quality gray, ductile, and austempered ductile iron casting prototypes. Joyworks strongly believes in paving the way for future metallurgical innovations and innovators. Partnering with the University of Michigan, Joyworks helps teach future Materials Science and Engineering students the science and art of the foundry. The team also aims to serve the industry and industrial associations related to metal casting. To find out more about Joyworks Studio, please visit Joyworksstudio.com. We look forward to sharing with you at member events.

Professional/Student Night Mixer
Thursday, September 20, 2018 • 6:00 – 9:00 p.m.
Conor O’Neill’s
318 South Main Street, Ann Arbor, MI 48104
$25 with Reservation; $30 No Reservation/Non-Members; $20 Retirees/Unemployed; $5 Students. Reservation includes 2 drink tickets and appetizers.
For reservations contact Julie Nimer at the Chapter Office at 586-944-5656 or e-mail AsmDetroitChapter@gmail.com.
Past and Future

In July, I was able to participate in the two ASM Teachers’ Camps that were sponsored by our chapter. The Camps are an outstanding activity, allowing teachers to learn materials science both from a textbook as well as a hands-on approach. The opportunities they had will allow them to go back to their classrooms and be true ambassadors for our profession. Our chapter has been a strong sponsor both in terms of money as well as volunteers. Thanks for helping us make this a great outreach event. Our special thanks to Peg Jones and Kathy Hayrynen for organizing, running, and ensuring that these camps are the gold standard. Going forward this fall, our chapter will be continuing to award $250 grants to select teachers so that they may purchase materials and equipment to keep the experiments going throughout the year.

By the time you read this, Metro Detroit will have celebrated the 24th Annual Woodward Dream Cruise. Each year, as I watch the cars go by, I reflect on the old and the new; it really brings into focus the changes that materials have made in the auto industry. Our profession allows cars to be safer, more environmentally friendly, and more enjoyable to drive. Going forward, electrification will require even more developments in materials to enable these vehicles to have the same range and refueling capabilities as we enjoy today.

As we move into the Fall, we will have our first Chapter event. Our 2018-2019 chapter year begins with our annual, award-winning Professional/Student Mixer night. This is an informal, conversational event where professionals and students can converse about materials. It is a great opportunity for us to learn about the topics the students are being taught and are interested in; in turn, the students hear about the needs of industry. Please plan on attending the event on Thursday, September 20, 2018, at Conor O’Neill’s in Ann Arbor.

The value of ASM membership lies in our chapter meetings. It provides us with an understanding of our industry, its challenges, and its advancements. Keep joining us this year; bring a friend or a potential new member as well! The list of meeting dates can be found below and on our website.

I hope that you enjoy the last days of summer!
ASM Leadership Days

2018 ASM Leadership Days was another inspiring, exciting, informative, and excellent networking event for nearly 100 attendees hosted by ASM International in Cleveland, Ohio from July 26-28, 2018.

As in the past, the focus of this year’s event was to highlight the key tools available to the leaders of various Chapters for their use and to ensure that they are effective in developing and running their Chapters. ASM Chapter Council members presented on various topics like Leadership Roles, Communications, Membership Engagement, ASM Connect, Chapter Websites, Educational Partners, and Innovative Programming. There were additional awareness sessions on the ASM Foundation, ASM STEM Premier & Education, mentoring, and career development opportunities. Attendees had ample opportunity to meet with ASM Executive Leadership, Chapter Council members, and network with leaders from other Chapters. Chapters were recognized through awards in various categories. Our Detroit Chapter was awarded the Young Professional Outreach award, highlight of which was outreach to female students through Materials Girl Patch event. Thanks to everyone at Detroit Chapter who volunteered and made it a great success! This event was also highlighted during the Womens in Materials Engineering session.

The culmination of the event was an inspiring talk by the guest speaker, General Charles E. Wilhelm about ‘Motivating Others to Take Action.’ General Wilhelm was Commander-in-Chief of USS Southern Command responsible for USS activities in 32 countries of Carribean, Central, and South America and served as Deputy Secretary of Defense during the GW Bush administration. He attended various sessions during the Leaderships Days and had very postive comments about the our Society, the Chapter leaders he interacted with and Society’s mission and vision for the advancement of materials knowledge in education, industry and society.

Micro-Examiner 2018-2019 Advertising Supporters

We are currently in the process of updating our newsletter advertising supporters for the 2018-2019 season. If you are a current advertiser you will be receiving a letter of solicitation shortly. If you wish to be a new advertiser in the Micro-Examiner and show your support of ASM, please contact the Detroit Chapter Administrator at (586) 944-5656 or asmde troitchapter@gmail.com.

The ASM Detroit Chapter Thanks It’s Sustaining Members for Their Continued Support!

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Thanks to Fluxtrol's generous donation we are able to offset the dinner cost at our monthly chapter dinner meetings for our STEM Outreach attendees. These attendees include: Teacher Scholarship Winners, University Scholarship Winners, Community College Scholarship Winners, Metro Detroit Science Fair Winners, and ESD Future City Winners.

College and university students can also attend our ASM Detroit Chapter dinner meetings for just $5 thanks to this generous donation!
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Detroit ASM pulled off two weeks of Teachers Camps this year! The LIFT Consortium sponsored and hosted a “Year 1” Camp at their headquarters in Corktown from July 9-13, and we were back to U of M in Ann Arbor for the advanced “Year 2” Camp July 16-20.

Twelve teachers from Metro Detroit get their first taste of Materials Engineering at the LIFT Camp – they loved it! To give you some idea of how much Teachers get out of “Camp”, Priscilla Oshikiri who teaches materials science at UD Jesuit, spent 4 days of her summer vacation helping with this Camp as a way to repay the Chapter for their support for her Materials Classes. Laura Moore, who teaches Materials Science at Hartland High School, also gave us a day of her vacation to help. (Both Priscilla and Laura have won Detroit Chapter teacher grants in the past few years.) Two teachers from Mercy High School helped us clean up for two hours after Camp ended! Adding this new camp at a new location took a lot of help from Chapter members. Julie Nimer made sure the teachers got lunch, and ASM Member Bob McCune shared his real world knowledge of corrosion. Detroit Chapter member Tom Prucha brought the AFS’s Foundry in a Box kit so the teachers could make castings, and James Boileau gave a presentation on lightweight design. Kae Trojanowski picked up the graduation lunch at Slow’s BBQ. The amazing Kathy Hairyinen overwhelmed us with her gourmet baked treats and gifts for the teachers. We are also grateful to Chip Keough at Joyworks for loaning us his interns and truck to help haul a heavy furnace from U.D. Jesuit to LIFT. The LIFT staff were great hosts and we hope to return next year.

The day after we cleaned up at LIFT we were setting up for the “Year 2” Camp at Ann Arbor. We hosted 27 teachers from all around the US and Canada. About half of them teach a materials science elective and the remainder were preparing to. This was an outstanding group of learners. Despite being out of state for a plant startup, Kathy managed to spoil us with her homemade treats and generous gifts. The University of Michigan staff provided excellent support, and teachers enjoyed a number of field trips to see current research in flexible concrete, biomaterials, the 3D atom probe, and battery materials. General Motors allowed Trisha Rouse and Peg Jones to be on site throughout the week. Here are a few quotes from our advanced group:

“Education is not just taking a test – it’s being able to actually do something. This is content that the 80% of kids who don’t like school can be excited about.”

“I will teach solids in a totally new way.”

“I am grateful for ASM’s generosity.”

“It’s energy – the universal answer to all questions.”

The teachers raided the trash for broken samples to take home in the concrete testing lab.

The advanced Camp includes many more high temperature activities including melting and pouring a metastable zinc-aluminum alloy and making glass. In this picture the teachers are pouring small disks of glass that went into the furnace as sand and washing soda.

This teacher is pouring her zinc-aluminum alloy to create a small piece that generates a lot of heat when the precipitation reaction is triggered by striking the sample on the counter.

Graduation.
2018 Joint ASM/AFS Golf Outing

The 2018 Joint ASM / AFS golf outing held at Fellows Creek Golf Course in Canton, MI this past August was another great success! We had wonderful weather to add to the enjoyment of the event this year. I truly had a great time getting to see 64 golfers spend the day hitting their best shots and winning some fantastic prizes. Many thanks goes to the incredible work on the part of the golf committee. Therefore, a “BIG” thanks goes out to the golf committee which included Eugene Kuo, Greg Woycik, Jim Panasiewicz, Julie Nimr, Kae Trojansowski and ASM Entertainment Chairman Tim Stachowski for organizing the event. I also have to recognize our volunteers: Nikki Tiemans deserves thanks for helping out by selling raffle tickets, taking photos, and handing out free drinks to our golfers from the beverage cart. Thanks to Kae Trojanowski for assisting with the raffle and thanks to Jim Panasiewicz, Matt Karls and Brandon Welker helping with the Vegas hole! The banquet held after golf consisted of a delicious steak dinner followed by the awards ceremony. Sponsors were all recognized for the generous donations. Included in the Micro-Examiner is a complete list of all sponsors for the golf outing. Many other companies brought additional prizes which were raffled off and made some happy participants multiple winners. A final thank you needs to go out to these companies for their contributions.

The funds raised from the outing will be used by both ASM and AFS to better serve their respective programs and community activities. Hope to see everyone again next year!

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Now Available: 2016-2018 ASM Detroit Chapter Yearbook and Buyers Guide

Dear Chapter Members, The electronic version of the 2016-2018 ASM Detroit Chapter Yearbook and Buyers Guide is now posted on the ASM Detroit Chapter Website. Please click on the link below to view. http://www.asminternational.org/web/detroit chapter/about/chapternews. If you wish to receive a paper copy of the yearbook, you can do so in one of the following ways: 1) Paper copies of the yearbook will be available at one of our upcoming Chapter Dinner Meetings for you to pick up. 2) You may request a paper copy mailed to your address by calling Julie at the chapter office at 586-944-5656 or a send an email with your request to asmdetroitchapter@gmail.com.

Thank You from 2018 ASM International Eisenman Materials Camp Attendees

ASM Materials Camp excites and engages young, aspiring minds. Camps are offered at no cost to attendees thanks to the generous contributions to ASM Materials Education Foundation (MEF). Our student camp volunteers take great pride in influencing the next generation of engineers and scientists. Many students from the Detroit Metro area attended Materials Camp this summer. Thank you letters were written from two of those attendees below:

I would like to thank my sponsors, mentors, and everyone who helped make Eisenman Materials Camp possible. It was a great experience to meet like-minded students with the same passion for science and learning.

From the first day at camp, I could tell that every mentor there had a shared love for teaching young people about what they do. Each teacher had different specialties in their fields that they could talk to students about for hours. All of the unique mentors created a community that I was truly sad to depart from at the end of the week.

I was greatly impacted by how our teachers treated us students. Whenever we had a group discussion about our fracture, we always had to come up with our own conclusion (sometimes that took longer than expected). They respected us and led us to a final conclusion without handing us the answer. It was a challenging process which made learning such a better experience for me.

I was introduced to a new field of engineering science that I would have never deeply explored had it not been for Eisenman Camp. These experiences and relationships from this camp will stay with me in the future, and I can’t thank ASM enough for supporting the education of young future engineers.

Sincerely, Yana from Metro Detroit, MI

Dear Dr. Jones:

I cannot thank you enough for your recommendation to the ASM camp. This is my first Monday back, and I am missing it so much already.

During my time there, I learned so many new things. I am now equipped with a stronger materials vocabulary. I know how to work with numerous tools and machines often found in labs such as SEMs, light microscopes, saves, those used in hot and cold mounting, and many more. I did not think that I could pick up so much in just one week, but here I am. The best part is, I had fun at every step of the way. In every activity, lab, and failure analysis, I was excited to continue working.

Additionally, I will never forget the bonds I developed there. I was surrounded with inspired and driven peers who encouraged my curiosity and worked alongside me in harmony. Both inside and outside of the labs and lecture rooms, we had so many laughs. It is impossible to describe how much I loved them--I can only say that I was crying the whole drive home.

Of course, none of my learning experiences could have happened if not for the amazing mentors. Their field experience and willingness to teach helped me have fun and learn so many new things. Moreover, it was them that inspired me so much to expand my knowledge in materials. For that, I owe them so much.

Thanks to the wonderful staff, intelligent peers, and awesome environment, I have found that I have a love for materials science. In fact, this camp just might have changed my life: I have decided to pursue a career in materials science. Because of this camp, I have found that materials science excites me in a way that makes me want to do it every day for the rest of my life.

So, thank you. Without your help, I could never have found this side of me. I am thrilled to find out where this new interest will take me.

Sincerely, Devon from Metro Detroit, MI