Chapter Awards Program – Category 1 (<100 members)

Quad Cities USA Chapter – Student Outreach

One of our Chapter's passions as Materials Engineers is outreach to area high school students to ensure they have an opportunity to learn about the field of Materials Science and Engineering before they leave for college. Many students are unaware of this field of study and we feel this needs to be addressed. Our outreach to area high school students this year was judged by our Chapter’s Executive Committee to be our greatest accomplishment in the 2018-2019 Chapter Year.

We achieve our objective through two activities offered at no cost to students: 1) a March ASM Student Night in which a speaker presents a topic of engineering interest and we advertise our June Materials Day Camp; and, 2) a 3-day ASM Materials Camp held in collaboration with Black Hawk Community College. Our Camp introduces students to the field through interactive hands-on labs, fun student team challenges, Materials Science demos and two tours of local industry – an aluminum primary metal producer, Arconic, and a combine manufacturer, the John Deere Harvester Works. The goal of the tours is to allow students to see how the Materials Engineer functions in each of these environments.

Our Chapter’s 2019 March ASM Student Night had (3) Iowa State University Solar Car Team students talk about collaborative engineering. Mechanical, materials and software engineering fields were represented and the students explained how they worked together to produce a competitive Solar Car. We had (48) registered guests including (25) students and (4) teachers in addition to Chapter Members, parents and other guests.

Our Chapter’s June 18-20 Materials Day Camp was our 14th annual camp, and introduced (15) students to the field. This year we significantly broadened our outreach to area high school students by using several new resources including the Mississippi Bend Area Agency STEM Coordinator, more frequent publicity through the Iowa High School career counselors, and tapping into the Quad City Area Home School and the Iowa-Illinois Career Cruising networks.

Our Camp’s success was due to a number of important factors. We started with a great team of committed Chapter volunteers. And we partnered with Black Hawk College and their excellent Materials Science facilities. These include ample lab space and equipment such as a SEM for our Failure Analysis module, furnaces for our Heat Treat and Microstructure module, and a new tensile testing machine for our Mechanical Testing module. The large number of hands-on lab activities as well as fun and interesting team challenge also helped make the Camp successful. But we were most fortunate to have the support and cooperation of area school career counselors who reached out early and often to their students. We strive for student
satisfaction, both that observed during the Camp and in the results of a detailed student survey. We use the survey input to refine and improve the next year’s Camp.