On the whole, the summer of 2020 looked a lot different for many people. However, while the coronavirus pandemic changed the face of how business is done, the business of steel kept on rolling. And while some aspects of a summer internship in the steel industry may have changed, many — thankfully — remained the same. AIST’s Steel Intern Scholars were able to be on-site at different steel-producing companies, interacting with steelworkers and absorbing all there is to learn in a summer in the mill.

The AIST Steel Intern Scholarship program awards approximately 30 US$6,000 scholarships each year, which include a paid summer internship with a steel-producing company or industry supplier. This article takes a look at how this year’s interns spent their summers.

**Second Time Around**

For several AIST interns, this was not their first experience in the mill. Owen Hall, who spent this summer and the summer of 2019 at Nucor Steel–Hertford County, credits this year’s internship with developing his communication and teamwork skill set. Audrie Corral (pictured above) also spent two summers at Nucor; last year at the Hertford County site and this year at Nucor Steel–Berkeley.

In addition, Ethan Klafehn has spent two summers with Steel Dynamics Inc. (SDI), in its Roanoke Bar Division in 2019 and in its Structural and Rail Division this year.
Hall’s internship focused primarily on working in the ladle metallurgical furnace section of the meltshop. Being a returning intern, this summer Hall focused on developing a relationship with his Nucor teammates by working alongside them in a utility role, getting to know crew members on an individual level and building a healthy rapport with the team. The reason for this decision, as Hall explained, was that meltshop engineers are required to perform a more classical engineering role, being familiar with engineering terms and technical concepts, while simultaneously working closely with the maintenance teams and operators on the floor, who work hard to keep the operation running smoothly.

“Playing this dual role helps propagate better communication between teams, and allows for meltshop engineers to translate the observations and suggestions of team members into effective changes for the plant,” he said.

Corral served as a cold mill metallurgist intern at Nucor Steel–Berkeley, where she was tasked with determining the factors contributing to width changes at the various processing units of the cold mill.

“The results of my project will ultimately help us deliver better quality products to our customers,” Corral said.

Klafehn said he had another great experience at Steel Dynamics Inc. (SDI).

“Last summer I worked at Steel Dynamics Roanoke Bar Division in Virginia as a meltshop intern,” he said. “I had a great experience there, and Steel Dynamics allowed me to come to Indiana this summer and experience a new type of metallurgy internship, in order to help me to better decide what path I would like to take for my career as a metallurgist after graduation.”

Uncertain Times

If there’s anything businesses have learned in 2020, it’s how to adapt. The interns’ working arrangements were varied this year, with some starting their internship remotely and others being brought on-site immediately.

“While the COVID-19 situation was ever-changing, Nucor did an excellent job communicating with its interns and prioritizing the safety and well-being of its teammates,” Corral said. “I am fortunate to work for a company that values its internship program and will take great lengths to continue it amidst great uncertainty.”

Although the length of his internship was cut short, Klafehn was brought on-site at SDI for part of the summer as a research and development intern. There he was able to perform a hot rolling study on a new grade of rail
steel that is currently in development, as well as help with other types of testing.

“I have been able to do all of this on top-of-the-line testing equipment while performing tests that I haven’t had the opportunity to be exposed to yet through my schooling,” Klafehn said. “I have also gotten to work directly with the R&D metallurgist and have been able to sit in on various meetings to see how issues in the mill are handled.”

Bryce Frederick started his safety internship with Steel Dynamics Inc. – Flat Roll Group Butler Division at home for the first eight weeks.

“This internship was definitely unique to say the least. My supervisors adapted well to the pandemic and still made this experience very beneficial for me,” Frederick said.

During that time he entered injuries into SDI’s database. He also was able to enroll in various online classes to help broaden his safety knowledge.

“I was able to complete the confined spaces, fall protection, and NFPA 70E courses through OSHAcademy and OSHA 360,” he said.

For Brady Palmer, it was an opportunity for Nucor Steel Tuscaloosa Inc. to save money.

“Due to everything happening in the world right now, especially with COVID-19, we attempted to cut costs by performing all work in-house,” Palmer explained.

“Because of this, I had the opportunity to get my hands dirty, work alongside a fantastic team and even take on many of the tasks by myself.”

The Takeaways

“I couldn’t have asked for a better internship under these circumstances,” Frederick said. “I have learned a lot about the safety industry and many life lessons. My supervisors did an excellent job making it a learning
Palmer found that his internship forced him to expand his knowledge.

“To say that I have learned a lot this semester would be a tremendous understatement,” he said. “I have learned about hydraulic systems, equipment installation, troubleshooting, project planning, welding, cutting, arc gouging, overhead cranes and leadership skills.”

In addition, Palmer encourages students to get involved with the steel industry, especially those in STEM programs.

“The experience you will get will be unlike anything you’ve ever done before,” he said. “You will have the opportunity to perform important, meaningful work, rather than something like making copies and fixing coffee. Most importantly, you will be working for a company that views safety as a value, not a priority, because priorities change.”

Lucas Clemetsen interned at Scot Forge this summer. He said going into the internship that he had limited knowledge of how much the steel industry had to offer.

“My education was limited as I had just finished up my first year of college. However, I now have gained a strong understanding of steel microstructure and properties. It has given me numerous connections I will be able to use for the rest of my life and I found a passion that I never knew existed,” Clemetsen said.

Allyson Cameron, who is AIST’s Premier Steel Intern Scholar this year, interned at Nucor Steel–Utah.

“This internship provided a range of experiences, from analyzing data to interacting with customers to running samples at our chemistry lab,” Cameron said. “I have learned much about what it truly means to be a metallurgist — the good, the bad and the Excel.”

The AIST Foundation would like to thank the companies that sponsored this year’s internships:

- Nucor Steel–Berkeley.
- Nucor Steel–Hertford County.
- Nucor Steel Tuscaloosa Inc.
- Nucor Steel–Utah.
- Scot Forge.
- Steel Dynamics Inc. – Flat Roll Group Butler Division.
- Steel Dynamics Inc. – Structural and Rail Division.

Applications for 2021–2022 are being accepted through 31 October 2020. To learn more, visit AIST.org.