



BEST PRACTICES

A Steel Industry Guide to Conducting Quality Internship and Co-Op Programs

BACKGROUND & PURPOSE



Background

The Association for Iron & Steel Technology (AIST) has embraced the important role that internship and co-op programs play in workforce development within the steel industry for many years. AIST has long endorsed the value of firsthand experience when introducing students to potential careers in the industry. AIST, through the AIST Foundation, provides significant funds in the form of scholarships, training and travel grants for students interested in steel, and in 2018 further elevated the important role that internships/co-ops play by setting the standard that every AIST Foundation academic scholarship awarded would include an internship at a steel-related company.

Through the work of the AIST Foundation's **University-Industry Relations Roundtable (UIRR)**, AIST has gained valuable insight into the perspective of student interns and co-ops. At the direction of the AIST Foundation Trustees in September 2019, AIST assembled a focus group of select steel companies that have quality intern or co-op programs (some identified by past students involved) to learn about key aspects of their programs and to formulate this "Best Practices" guide to conducting quality internship and co-op programs.

Purpose

During the course of discussion with industry executives, recruiters, university professors and students, it has become clear that everyone benefits from quality, impactful internship and co-op programs. The students benefit from hands-on experience with technology and engineering, a passionate workforce, career discernment and the sheer magnitude of a unique industrial manufacturing environment. Parents benefit when they hear positive things about the quality of education and career discernment attainable through university/industry partnerships. Host companies and their employees involved in the programs benefit from the opportunity to engage with enthusiastic students and potential new hires — a pipeline of fresh talent that becomes familiar with their corporate culture, goals and opportunities. Lastly, the industry benefits as we collectively ensure the workforce of tomorrow will have a sufficient number of qualified professionals.

Student programs can be very beneficial, but they also contain an element of risk. Everyone has witnessed the power of a good testimonial — a compelling story from someone who experienced something remarkable. Their firsthand account changes and shapes attitudes, motivates, and inspires. However, this pendulum can swing in the other direction. What if that testimonial is negative? What if that story shared among classmates, with parents, with professors, etc., is a bad experience? The purpose of this guide is to encourage companies to consider how they might improve their programs and how they can help ensure that there are no bad experience, so that we all truly benefit from quality programs that have a positive impact on tomorrow's industry workforce.

We asked our focus group a number of questions tailored around ways that their company is addressing what past interns and co-ops identified as important aspects of the ideal program.

1 Have a clear plan for what the student will be doing

Time spent during an internship or co-op is no different than any other learning experience — to be effective, there must be a plan. Just as school teachers create lesson plans and educational institutes create curricula, your company also needs a plan. Thought should be given to the goals of your program, and a structured plan or outline should be drafted to ensure that your program stays on track over the course of the student's time with the company. Staff members who are supervising the interns need to be invested in creating and implementing the plan.

One student intern reported that they struggled to find value in assembling the boss' new office chair. Another student found themselves cleaning out old filing cabinets. Quality programs do not define students as extra help to finally get all of the odd jobs done that everyone else has been putting off. If you find yourself struggling to find things for the students to do, consider putting more time into creating a plan.

2 Provide meaningful work assignments

There are few things worse for an intern or co-op than to feel that they are wasting their time. In order for their experience to be positive and impactful, you must be prepared to give students work assignments that are relevant and meaningful. Equally important is to also provide context regarding the connection between their assignments and the overarching goals of the project in general. Don't presume that the student will be able to connect the dots because they likely were not involved in the planning stages or development that preceded the assignment. Anticipate questions that the intern may not have enough information to ask. They also need to understand what is next regarding how the assignment will impact the desired outcome. Menial tasks seldom yield a sense of investment and purpose for students.

3

Convey your corporate culture effectively

Start with a pre-employment meeting or webinar that outlines the company values, expectations, etc. Have the students go through a new hire orientation, and later review those items again. Interns should then have an opportunity to participate in various meetings, volunteer events, social activities, etc. Consider having all first-year interns come to your corporate office to hear from the chief executive officer and executive team about how the company was founded, its values, its culture, etc.

Develop a peer panel that consists of prior interns or new associates that have fully experienced your company culture firsthand. Encourage these employees to talk about the corporate culture and provide examples of how company values are incorporated into everyday activities and business dealings.

Focus on being yourself and stress the same to the students. Leading by example tends to be the ideal way to show it.

Through training, meetings and ongoing communication, encourage them to provide feedback on the work environment, address their concerns quickly and promote teamwork.

Always stress safety, which is a vital component of the steel industry and its culture.

4

Include the student in company-sponsored social activities

Take every advantage to make the students feel welcome. Do not exclude students from opportunities where they can socialize and connect with your staff members. The value of these types of events can go a long way in building relationships, creating a positive impact and discerning whether the company is a good fit for future employment. It is also a chance to see how well the student is able to interact with individuals from diverse backgrounds.

Examples of company-sponsored activities include:

- Company bowling night.
- Social reception with management.
- Casual outing for interns.
- Department workshops.
- Volunteer events.
- “Lunch and learns” (free lunch with featured speaker).

In addition to internal company-sponsored activities, the AIST Foundation provides funding to cover student attendance at AIST conferences and local Member Chapter meetings with a technical program. If you wish to bring your student interns to these events, contact memberservices@aist.org.



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Provide a well-rounded experience for the student

The vast majority of the companies in our focus group include the students in a variety of experiences. This includes: safety meetings, staff/team meetings (department meetings), facility-wide meetings (everyone who works at that location), company-sponsored social events, work projects in other departments within the facility, meetings with the other student interns/co-ops at the plant to share what they are doing, review/evaluation of their time thus far in the program, problem-solving (when a specific engineering issue arises), and even, on occasion, meetings with clients (on- or off-site). Although most students are assigned to a department throughout their placement, they need to be included as much as possible.

It is important that companies demonstrate the many levels of teamwork that are required for steelmaking to happen. This understanding is crucial for an intern to realize the importance of every team member to the larger process.

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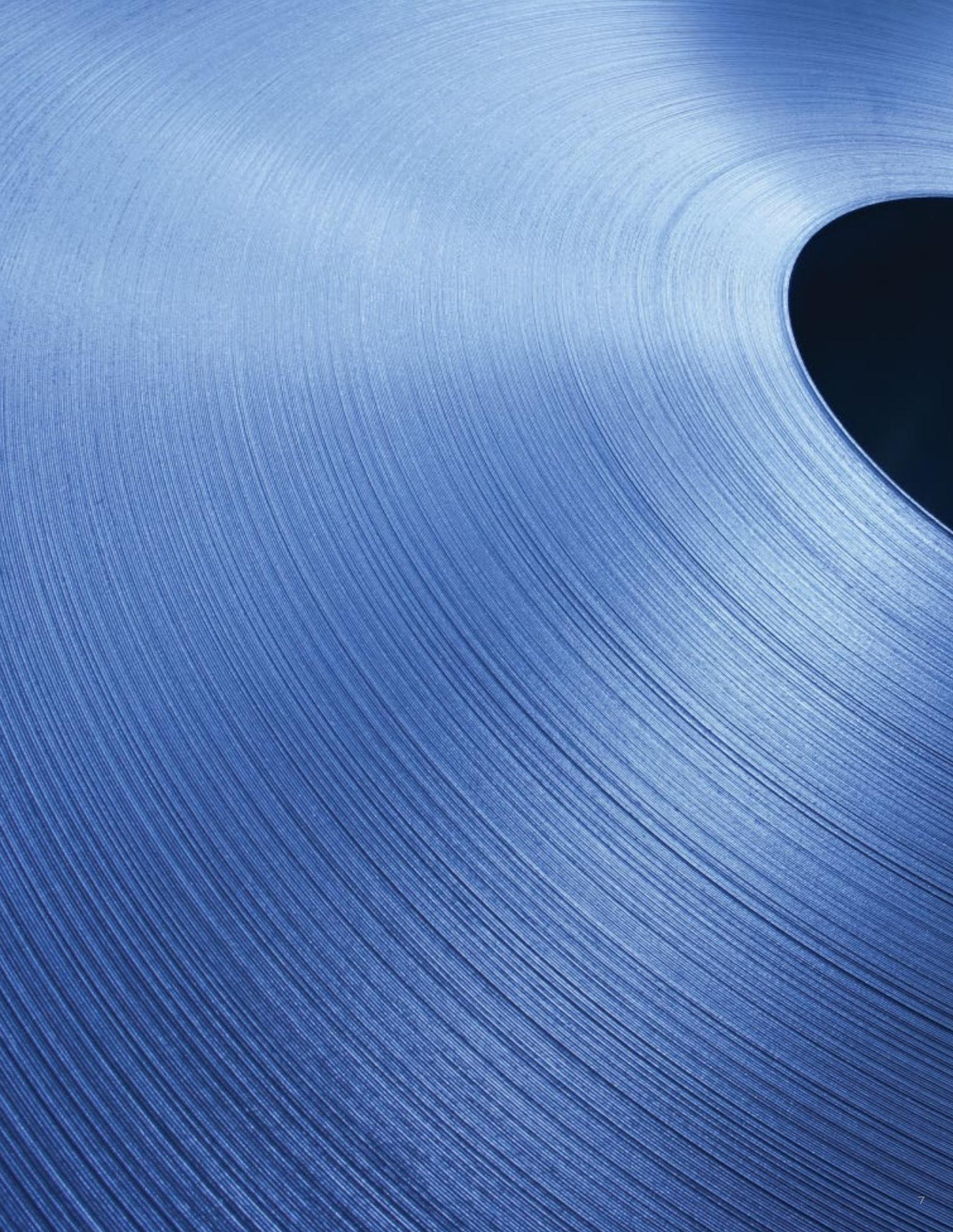
Assign an employee to serve as the primary supervisor/mentor for each student

You need to have people administering the program who want to be involved, embrace the sacred role of teacher, and who will make time to connect with the students throughout the program (often a department head or manager). If each student has several projects during his or her term, consider assigning different research engineers in each area as mentors. Employ a mechanism to ensure that you are seeking out and finding the right people to run your program. Staff members who are assigned to the program and have no interest are probably not the most effective ambassadors for your company.

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Demonstrate the diversity within your workforce

The benefits of a diverse workforce are undeniable. Students are attending classes on diverse campuses, working in diverse teams with other students, and interacting with friends and acquaintances around the globe. Make the conscious effort to identify and celebrate your diversity. If your company is working to become more diverse, share that to engage the student's perspective. It would be a shame if your company has a wealth of diverse people who contribute to your success, but the student left your employ with a sense that you do not, simply because you failed to let them explore other departments to get a feel for the overall diversity of the company.



FOCUS GROUP RESPONSES

What are the best aspects of your programs?

- The best aspects of our program would be the real-world, hands-on experience the students receive. Our students are challenged with the same meaningful work a full-time employee would do if they had more time in a day. We have seen engineering students improve scrap load mixes to reduce rejected loads while maintaining the integrity of raw materials, design and reconstruct a bridge within the mill without taking it out of order or compromising safety, present hands-on fire extinguisher training to mill employees, and much more. They are equipped to work in the field when they leave us. And 1 in 5 will stay on full-time.
- Our program allows us to show students who we are. We learn about them and they have the opportunity to apply what they've learned in school.
- The best aspect of our program includes the project-based assignments the students are given. It gives them the ability to apply the theories they learn in class and provides ROI to the company.
- Our program challenges the students. We embrace the opportunity to benefit from "fresh eyes" and new perspectives.
- The students are provided with detailed and comprehensive training for a couple of weeks before they start working with the equipment in the laboratory. They are assigned research projects geared toward finding solutions to real metallurgical problems; they are mentored by experienced engineers and technicians; they write technical reports and make presentations to our group at the end of the co-op term.
- We create a work environment that is safe and where the students can thrive by solving problems that help us improve our products. This helps generate tremendous satisfaction for the students.
- The best aspect of our student program is the large amount of exposure to the steel manufacturing process and the experience they gain from working with it. Several interns reported that they liked how their internship allowed them to be hands-on right away and are encouraged to learn as much as possible. Our interns like being exposed to the environment of a steel mill because it is an experience that they may not get to witness in another internship. The scale of production of steel and large machinery is what fascinates them the most. In addition, the knowledge and support that the interns receive from the more experienced employees pair well with this aspect of our program.

How do you improve a great program?

- Find ways to be more of a high-touch program with interns that are remote. We have a large percentage of interns between our mills and corporate offices and it is difficult to provide the same experience to those in less proximity.
- We would like to expand our program to other divisions, as well as obtain more consistent feedback about the program.
- We could improve by adding more structure to our program; for example, having the same start and end dates for all students.
- The most recent improvement we made is to provide descriptions of the projects the students will be working on prior to their arrival so that they can make a better decision regarding the projects they would like to work on.
- Assign more mentors to interns. Ensure that all the departments are completely ready for the interns on day one of their internship (laptop, access to proper files, programs, desk phone setup, PPE gear, etc.). Offer more intern networking events or social events.
- Make sure that you have a welcoming environment. All employees should know when the students will be arriving. Proper onboarding for students (and new hires) is essential and fundamental to acclimation. Job satisfaction includes feeling welcome and comfortable.

Recommendations from university career services personnel:

- Actively engage with your targeted universities. Find reasons to be on campus and interact with students. The more students see your organization, the more comfortable they will become. This can be as little as adding one additional engagement over an academic year.
- Ensure your interns leave knowing what they accomplished during their internship. Have an exit process where the students give a presentation to management. This helps students understand their contributions and feel like they had an impact. This also helps students describe their experiences to peers and potential employers.
- Expedite onboarding. If a student spends the first two weeks onboarding — not uncommon for full-time hires — they have wasted a good portion of an internship. This is not as critical for longer engagements like co-ops.
- Understand that returning interns are your best campus ambassadors. If a student leaves his or her internship feeling he or she learned and contributed in a meaningful way, it is a message he or she will share with classmates.

How do you find quality students to fill your positions?

- Student interns are found through connections with specific universities (career services), career fairs, AIST Steel Intern Scholarships, and events including AIST's student recruiting receptions (sponsored by the AIST Foundation) at AISTech and the Materials Science & Technology (MS&T) conference.



FOCUS GROUP RESPONSES

Do you provide the students with compensation?

- AIST found that the programs within the focus group all offered paid internship and co-op positions to students. Most compensation ranged between US\$20 and US\$30 per hour.

Do you provide housing for students enrolled in your program?

- Most of the companies (80%) that participated in our focus group offer student housing. The majority provide lodging in apartments or a nearby dormitory where students live in close proximity to one another.
- All of the companies provide activities for their students to interact with one another during their time with the company. Students should have opportunities to socialize and network with one another.

How do you monitor the intern or co-op's experience?

- A quality student program requires dialogue with the student. It is far more than just having them show up, and then checking in on the last day of their placement. The purpose of the dialogue is to touch base and keep tabs on how the experience is going. If you find that things just are not of interest to the student, don't be afraid of pivoting — find out where their interests are, and see how you can align them with what you have available. Companies we spoke with were equally divided regarding when to schedule staff reviews with the student: half of the programs meet about halfway through and then at the end, while the other half of the programs meet more than three times during the student's placement.

How do you evaluate your program?

- Some companies have both the student and staff complete evaluations at the end.
- Every student is encouraged to provide feedback to us on our program and potential areas for improvement during their co-op term, and at the end. We hold weekly meetings to discuss safety, project priorities and general administrative issues. In these meetings, all employees, including students, participate in the discussions. These activities allow us to evaluate the success of our program. We treat the students just like any other employee of the company.

What are some ways your company evaluates the success of your program?

- The number/percentage of interns that are hired in as a full-time associate.
- Feedback from interns through evaluations.
- Manager evaluations about intern performance.
- The percentage of our interns that are invited back to complete another internship.
- Cost savings on the project.

Conclusions

The most important aspect of a highly effective internship or co-op program comes down to one thing: PEOPLE. All of the elements mentioned in this guide may be in place, but the bottom line is that if you do not have the right people running your program, you may never realize your fullest potential. It is critical that companies select a diverse group of dedicated staff who embrace the sacred duty of serving as a teacher, supervisor and mentor.

They must be able to:

- Connect with the students.
- Answer questions.
- Provide context.
- Remain approachable.
- Offer guidance.

Two programs that are equal in every way will yield different results depending on the staff members selected to administer the program.

Acknowledgment

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The AIST Foundation invites you to join the conversation by participating in the University-Industry Relations Roundtable, held at AISTech and at the Materials Science & Technology (MS&T) conference.

For more information, visit [AIST.org](https://www.aist.org).



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