



University of  
Northern Iowa™

## UNI Metal Casting & Foundry 4.0 Centers



### UNI's Metal Casting and Foundry 4.0 Centers welcome director Drew James

The University of Northern Iowa is pleased to welcome Drew James as the new director of the [Metal Casting and Foundry 4.0 Centers](#). James brings over 17 years of experience in professional casting to the team. In his new role at UNI, James will provide leadership and direction for projects, oversee interactions with casting industry clients and technical organizations, design and lead research studies, and lead engagement with state and federal legislators, government liaisons, and industry leadership. Read more [here](#).

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## UNI Metal Casting and Foundry 4.0 Centers host summer interns

This summer, UNI Foundry 4.0 and Metal Casting Centers hosted 22 interns. Our interns represented seven institutions including Iowa State University, Ohio State University, Instituto Tecnológico de Saltillo, Universidad Autónoma de Nuevo León, Missouri University of Science and Technology, Marquette University, and the University of Northern Iowa.

Our interns made valuable contributions across a range of projects this summer. Below are a few examples of their work, highlighting just some of their many achievements.

- Kaitlyn (OSU) and Andrew (MS&T) worked on developing tools with the assistance of LLM and ChatGPT to help in mold making. View their CHAS-SURP poster [here](#).
  - Frances (Grad Student UNI) worked on learning robotics and ROS to help with future projects regarding the gantry styled robots.
  - Sam (Grad Student UNI) worked on investment casting burnout analysis, including machine learning algorithms to determine the required burnout time of investment casting shells.
  - Issac and William (high school graduates) explored robot programming for the two robotic finishing cells while using our force compliant tools for finishing.
  - Sofia (ITS), Rodrigo (ITS), Aini (ITS), Mario (UANL), Lesly (UANL), and Devani (UANL) used the investment casting process to design and cast brass panthers. Students documented their research and presented this project with the CHAS-SURP Poster Symposium. View their poster [here](#).
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## UNI Metal Casting and Foundry 4.0 Centers staff state fair booth

Our staff, student employees, and summer interns helped staff UNI's state fair booth. The Applied Engineering & Technical Management Department had an area of the UNI booth to promote the department, the new building, new majors and existing majors. We staffed the booth on Saturday and Sunday, assisting with the two 3-D printers making panther paw print keychains and a teaching robot arm demonstrating some of its capabilities.

# Applied Engineering Visit Day



Are you a student that's interested in engineering? Or do you know a student that is interested in engineering? Join us at UNI's Applied Engineering Visit day! This visit will give you a look at the degrees offered at UNI and a chance to explore career opportunities available after graduation across various fields and industries. The visit day will include a browsing fair, interactive demonstrations, a chance to hear from current UNI engineering students, and a tour of the state-of-the-art Applied Engineering Building, which recently underwent a \$40 million renovation and expansion.

Explore the agenda and register [here](#)!

Follow us on social media!



## **Metal Casting & Foundry 4.0 Centers**

University of Northern Iowa

[mcc-info@uni.edu](mailto:mcc-info@uni.edu) / 319-273-6894

[mcc.uni.edu](http://mcc.uni.edu)