

Update- AIST Steel Curriculum Grant

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Acknowledgement

- Dr. Mingzhi Xu (mxu@georgiasouthern.edu)
 - Feedback on course materials development and delivery
 - Cost share for equipment acquisition
 - Peaslee Junior Faculty Award Recipient in 2020
 - Foundry Educational Foundation Key Professor

2020-2021 Update



Lectures/ labs developed & delivered two times



90+ students
participates the Steel
101 Training Course

6 participating in person
next month



Three virtual tours- AIST Foundation & AIST
Young Professionals



Students' internships in the local heat
treatment company and foundries.

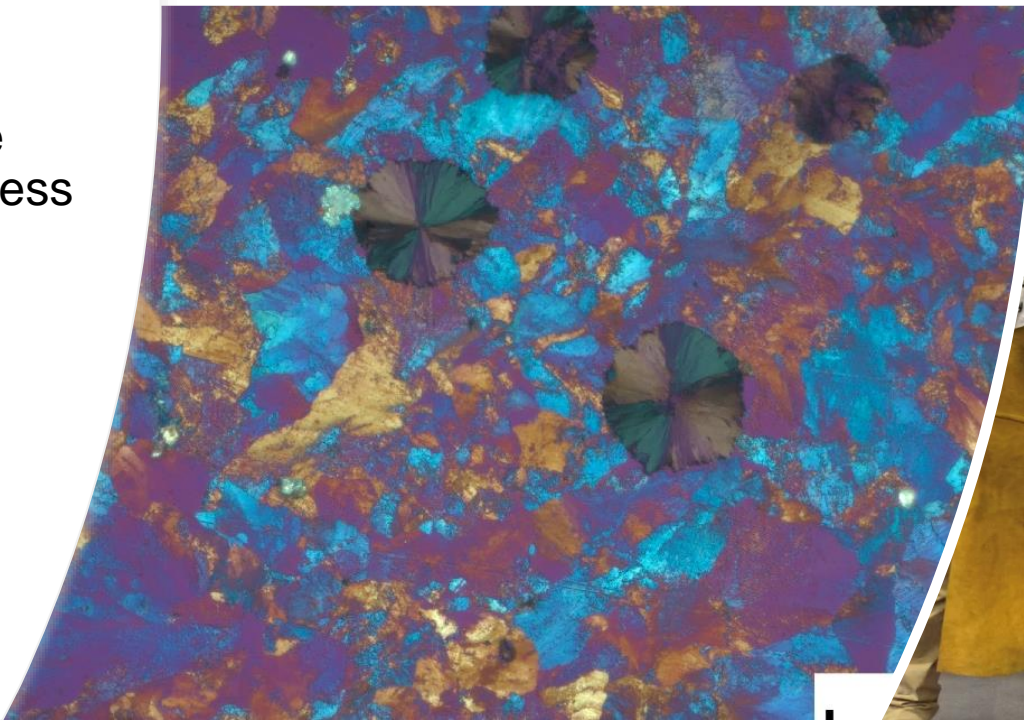
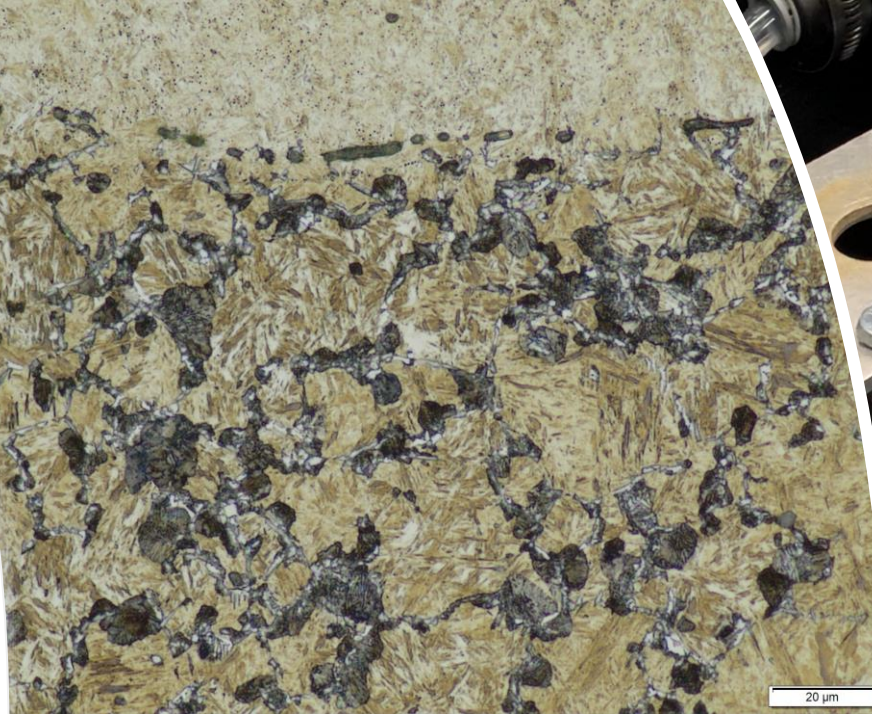


Foundry tours + AIST Southeast Chapter
connection

2020-2021 Update

Acquisition/building/upgrade of instrument:

- A Zeiss OM with DIC/BF/DF capabilities
- A blacksmith steel forge and hydraulic forging press
- A Jominy end quench apparatus up to ASTM A225 standard



Our Facility



ITC induction furnace, 50KW, donation from IMERYYS

Tinker-Omega Tom-50 continuous sand mixer, \$30k

Simpson sand testing equipment, moisture, compaction, universal strength tester, donation from Charlott Pipes and Foundry, and purchased \$3k

Heraeus celox temperature measurement system, ~8k

ATAS system, ~15k

Struers autopolisher, ~30k

SPECTROMAXx spectrometer, ~60k

Zeiss optical microscope, ~30k

Gas melting furnace, 60 lbs aluminum capacity, donation from Specialty Foundry Products

30KW induction melting system, 20lbs capacity for master alloy, ~12k

Vibratory Polisher, ~20k

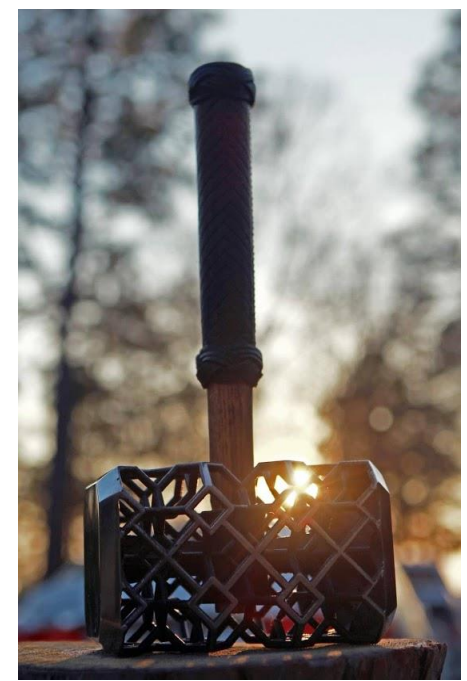
Vacuum heat treatment furnace, ~500k

Student Projects at Georgia Southern

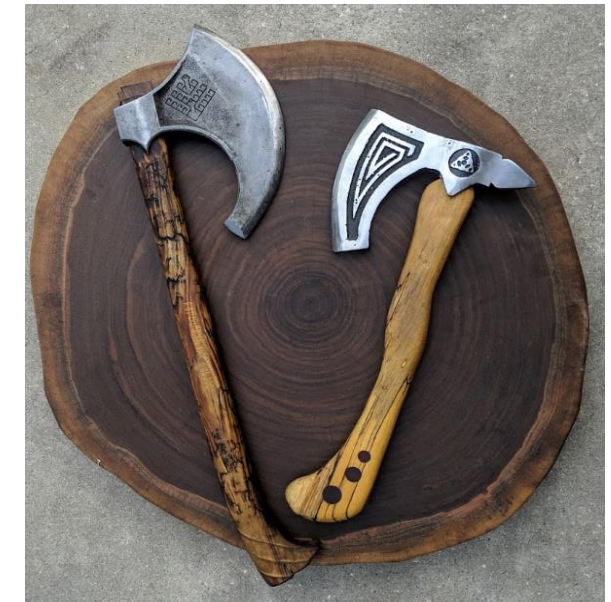
<https://www.sfsa.org/video/cis/2021/teamvideos/GASouthern.php>



- “Most Intricate Casting Award”, 2021 SFSA Cast in Steel Competition



- Cast iron cookware, Casting class final project- design and make your own patterns with our logo



- Viking axes, 2019 SFSA Cast in Steel Competition