

March 23, 2022

CEAS Shop - Systems and Manufacturing Engineering Internship

Location: Laramie, WY – University of Wyoming College of Engineering and Applied Science – EN L65

## Summary

An opportunity exists for a Mechanical Engineering student to assist in designing and building experimental & educational systems for a wide range of disciplines across the UW campus in the Engineering Shop. This hands-on internship position is multiple parts: System integration, mechanical design, CAD modeling and time spent working in the shops (fabrication, machining, soldering, wiring, daily upkeep, etc...). The position will be up to 40 hr/week during the 2022 Summer and up to 20hr/week during the Fall 2022 Semester, pending what the selected candidate's course schedule allows. Hourly Rate: \$12/hr, no overtime.

## Who we are

The UW Shop, located in the College of Engineering and Applied Science, is the only research, educational and academic support shop on the UW campus. We provide a wide variety of design and fabrication services to the UW community including students, staff, faculty, and full-time researchers.

## Minimum requirements

- Be actively pursuing a Bachelor of Science in Mechanical/Energy Systems Engineering
- Have completed Mechanics of Materials, Electrical Circuits I & Statics/Dynamics courses (Sophomore level & up)
- Maintain good interpersonal communication, listening skills & ability to discuss technical concepts with co-workers & customers
- Have some Solidworks/Fusion 360 experience & desire to learn/implement more
- Have some machining/welding or related shop experience & willingness to learn more as needed
- Have spent some time working with electricity, electronics or circuits

## Preferred requirements

- Having spent time working in a manufacturing/machine shop or other construction/industrial setting
- Experience completing machining/welding, mechanical/electrical repair and diagnosis of equipment
- Have completed courses in mechatronics, material selection, system dynamics, fluid mechanics, manufacturing processes and technical writing.
- Understand analog to digital conversion, boolean logic, electrical noise, data/controls systems, etc.

## Duties

You will be asked to perform a wide range of tasks to meet our client's needs, including:

- Machine shop duties (Machining, using hand tools, sweeping, organizing & cleaning as needed)
- Mechanical design
- Generate solid models, assemblies, and detailed fabrication drawings – Solidworks or Fusion 360
- Generate detailed cost estimates
- Generate basic system schematics
- Electrical wiring
- Repair laboratory equipment, including soldering & troubleshooting
- Troubleshoot using tools such as oscilloscope, multi-meter & other basic hand tools

## Training

The Systems and Manufacturing intern will undergo training including hands-on time working with shop staff, opportunity to learn LabVIEW/Electronics programming and financial assistance with Solidworks certifications. The Engineering intern must be flexible to work with both the Master Technicians and the Systems Engineer, to help move the department forward, whatever the task may be.

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### How to Apply

Submit a resume and copy of your current transcript to Spencer Miller, Shop Manager - [smille61@uwyo.edu](mailto:smille61@uwyo.edu), other items such as a brief summary of why you're interested in the position, your qualifications, skills, work history, etc...will also be accepted and used in consideration of you as a candidate.

Application Deadline: April 22, 2022

Starting Date: May/June 2022, worked out with applicant's schedule