Undergraduate Student Researcher Position

Start Date: 09/01/2016

**Duties:** The Mesoscale Science Laboratory (MSL) is in need of an undergraduate research assistant to work on a variety of projects, both independent and in support of the graduate student researchers. The MSL is dedicated to research related to developing a physical understanding of processing-structure-property relationships of crystalline and amorphous materials. We focus on the development and implementation of novel mesoscale material quantification methods for correlating unique local microstructural features with particular mechanical and environmental responses in a variety of material systems. The goal is to develop experimental and analytical techniques to directly guide, inform, and validate physics based computational models of material behavior.

The primary duty of the undergraduate researcher is the development of machine drawings and the design of a constant stress creep frame. This requires the integration of both electrical and mechanical devices into a fully engineered system. In secondary, the student is participate in the design of codes for the analysis, and visualization of experimental data from the once finished creep equipment. This student will also be the primary equipment captain for the optical microscope in the lab; responsible for training new users on the equipment and maintaining the training manuals.

**Qualifications:**

- Experience with Solidworks, and Python
- Leadership experience
- Skilled at teaching new concepts to others, and dealing with disparate learning styles

**Application Time Period:**

Case Western Reserve University undergraduate students should submit resumes to Prof. Jennifer Carter (jwc137@case.edu) via email between now and August 19th, with the subject of MSL Student Researcher position.