



**YOUNGSTOWN  
STATE  
UNIVERSITY**

**CLASSIFICATION SERIES:**  
STEM Laboratory Specialist

**BARGAINING UNIT:**  
ACE

### **STEM Laboratory Specialist**

**SERIES PURPOSE:** The purpose of the STEM Laboratory Specialist occupation is to oversee the operations of the 3-D Printing Laboratory and Moser Machine Shop including supervision of student lab utilization, design, development, testing, and fabrication of parts and machines, service, and repair of machinery, and maintaining inventory of equipment and supplies. Coordinate moves within the College of STEM involving personnel and equipment; assist in selection of furniture and equipment; coordinate placement and installation; serve as liaison in interactions with university architect, project architects, delivery services personnel, movers, etc. as needed.

**CLASS CONCEPT:** The class works under general supervision and requires knowledge of 3-D printing and machine shop operations; enforces policies related to lab and machine shop operations.

Incumbent participates as part of a team of laboratory personnel to ensure the efficient utilization of the 3-D printing Laboratory and Moser Machine Shop; ensures the safety of lab personnel and students.

**JOB DUTIES:** Incumbents may perform some or all of these duties or other job-related duties as assigned.

Coordinates moves within the College of STEM involving personnel and equipment; assists in selection of furniture and equipment; assists with the setup of events.

Provides supervision of student use in workspace facilities associated with the STEM College; maintenance and calibrates, and schedules the use equipment in workspaces, including cutting, drilling, and post-processing of items; prioritizes jobs on equipment; attend workspace-related promotional events.

Receives work requests; evaluates, prioritizes, and assigns as appropriate; consults with requesters and/or resource persons to determine proper approach to projects involving complex systems; establishes and maintains record systems for monitoring work progress and materials/parts inventory/ordering.

Coordinates maintenance programs for laboratories; provides assistance to faculty, staff, and students to ensure familiarity with operation of equipment and laboratory maintenance needs; oversees safety

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equipment; provides safety training and explains proper use of machine shop and laboratory equipment; services and repairs machine and laboratory equipment as needed.

Designs and fabricates parts and machines to support various University projects using available materials; provides assistance to students with the construction of STEM competition projects.

Locates and orders materials, parts, and machines; prepares annual activity and inventory reports; participates in the annual equipment inventory reporting; attends training courses to remain up to date on latest technologies.

**OTHER FUNCTIONS AND RESPONSIBILITIES:** Assists with training new hires.

Performs any and all other duties assigned and/or required that are within the level of responsibility for this classification at the discretion of the supervisor.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge of: 3-D printing processes and techniques; laboratory machine shop procedures and equipment operation; blueprint reading; safety practices and procedures; state and federal regulations, policies, and procedures\*; basic mathematic principles.

Skill in: operation of 3-D printing and machine shop equipment; use of personal computer; machine shop equipment operation; hand and power tool operation.

Ability to: define problems, collect data, establish facts, and draw valid conclusions; interpret a variety of technical manuals and documentation; communicate verbally and in writing on technical and non-technical matters; gather, collate, and classify information about data, people, or things; prepare and maintain accurate and concise reports and records; handle sensitive inquiries from and contacts with officials and general public.

(\*) Developed after employment.

**MINIMUM QUALIFICATIONS:** High School diploma or GED; minimum of one year of experience in laboratory and/or machine shop procedures and equipment; experience in 3-D printing operations; and experience in hand and power tool operation, blueprint reading, and arc welding; and a valid driver's license.

**REQUIRED CERTIFICATIONS, TRAINING, AND/OR LICENSURES:** A valid driver's license.

**PHYSICAL REQUIREMENTS:** In accordance with the U.S. Department of Labor physical demands strength ratings, this position will perform very heavy work.

**VERY HEAVY:** work involves exerting 100 pounds of force occasionally, or 50 pounds of force constantly to move objects.

**UNUSUAL WORKING CONDITIONS:** May be exposed to dirt, dust, fumes, noise, and dangerous machinery.