



**YOUNGSTOWN  
STATE  
UNIVERSITY**

**CLASSIFICATION SERIES:**

STEM Laboratory Specialist

**BARGAINING UNIT:**

ACE

**STEM Laboratory Lead 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. Coordinates moves within the College of STEM involving personnel and equipment; assists in selection of furniture and equipment; coordinates placement and installation; serves as liaison in interactions with university architect, project architects, delivery services personnel, movers, etc. as needed.

**CLASS CONCEPT:** The class works under general direction and requires considerable knowledge of 3-D printing, machine shop operations, and facilities' layout and construction; provides input into the development of policies concerning lab and machine shop operations and enforces policies; and assists with oversight and inspects construction, alteration, and maintenance of facilities as well as oversee construction project operations.

Incumbent leads a team of laboratory personnel to ensure the efficient utilization of workshop, laboratory, and Moser Machine Shop; ensures the safety of lab personnel and students; develops and implements policies and procedures related to the machine shop, labs and equipment use; and assists with oversees construction project operations, develops and prioritizes equipment plans and budget requests to the dean.

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

Plans, organizes, and manages renovation projects; includes project planning and work analysis involving job site inspection. Interprets building codes and coordinates with departments, committees, and other staff as needed.

Monitors projects during construction phase. Estimates labor and material costs; develops material lists and places orders.

Performs building inspections.

Effective 08/08/2025

Works on special assignments and projects as directed.

Attends, coordinates, and/or conducts meetings in dean's stead as needed.

Coordinates moves within the College of STEM involving personnel and equipment; assists in selection of furniture and equipment; coordinates placement and installation; serves as liaison in interactions with university architect, project architects, delivery services personnel, movers, etc. as needed; assists with the setup of events.

Provides supervision of student use in workspace facilities associated with the STEM College; oversees maintenance, calibrations, and schedules the use of equipment, including cutting, drilling, and post-processing of items; prioritizes jobs on equipment; attends 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; participates in the development of policies and procedures related to the machine shop, and equipment use; assists in planning for future equipment and program needs, both related to the development of labs for new and ongoing programs; provides assistance to faculty, staff, and students to ensure familiarity with operation of equipment and laboratory maintenance needs; oversees safety 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; provides guidance for first-year engineering students on projects; provides technical support for senior design projects.

Supervises the student lab assistants throughout the employment cycle; coordinates work activities, schedules, and participates in training and evaluation on a daily basis.

Locates and orders materials, parts, and machines; develops and prioritizes equipment and budget requests to the dean; 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 other duties as assigned and/or required that are within the level of responsibility for this classification at the discretion of the supervisor.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

Effective 08/08/2025

Knowledge of: laboratory machine shop procedures and equipment operation; blueprint reading; safety practices and procedures; budgeting; employee training and development\*; state and federal regulations, policies, and procedures\*; basic mathematic principles.

Skill in: building construction, operation, and maintenance procedures; operation of 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 which includes responsibility for 3-D printing operations and machine shop operations; minimum of two years of experience in laboratory and/or machine shop procedures and equipment; experience in hand and power tool operation, blueprint reading, and arc welding; and a valid driver's license.

**PREFERRED QUALIFICATIONS:** Five years of experience with building construction, operation and maintenance procedures. Five years of experience with planning and organizing renovation projects. Five years of experience with organizing and overseeing delivery and installation of very large equipment to different buildings. Demonstrated leadership skills in making different entities work together to meet deadlines.

**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.