

Department Chair's Welcome



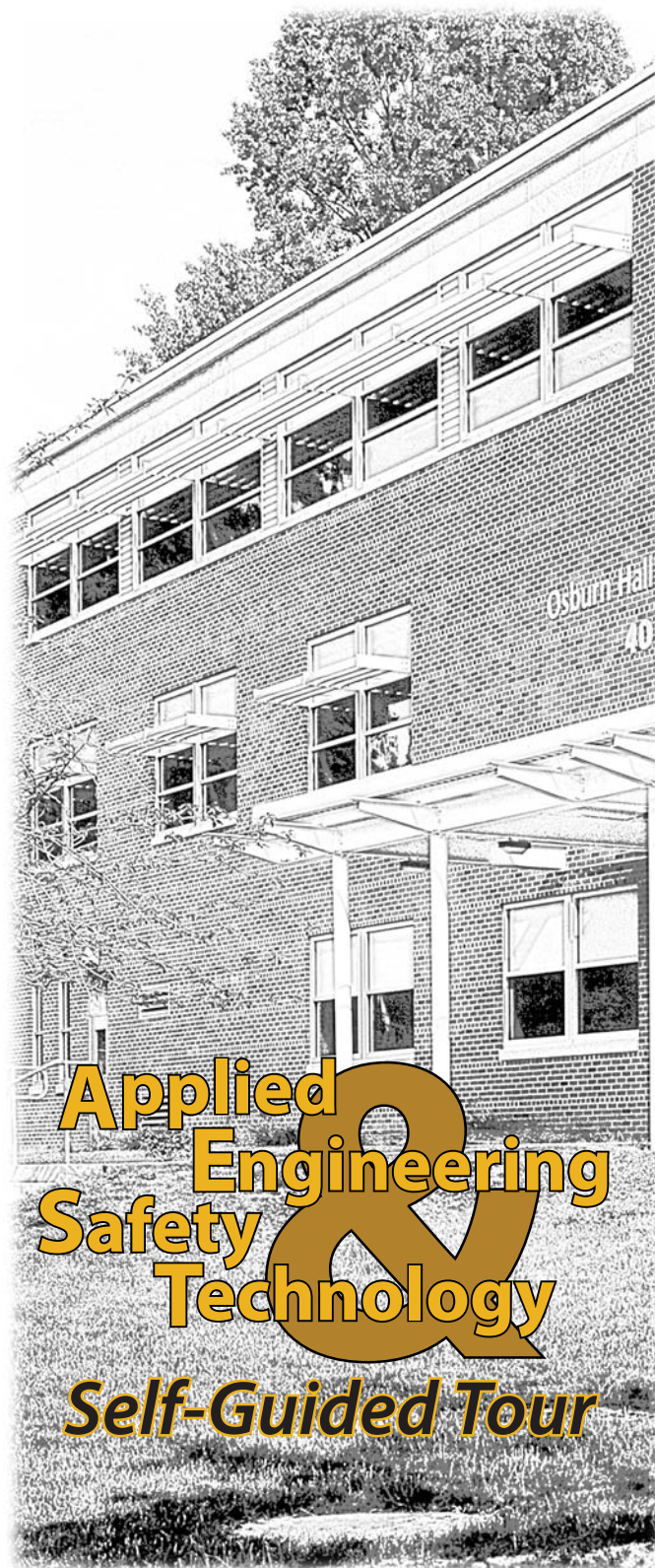
Dr. Len S. Litowitz

Thank you for visiting the Department of Applied Engineering, Safety & Technology at Millersville University. We serve over 500 students and offer undergraduate degrees in Technology & Engineering Education teacher preparation, Occupational Safety & Environmental Health, and Applied Engineering & Technology Management.

Technology & Engineering Education majors may choose to pursue traditional preparation in their field, or take advantage of our newly created concentration in Engineering Design Education. Our Applied Engineering & Technology Management majors specialize in one of seven different technical concentrations including Advanced Manufacturing, CADD, Construction Technology, Nanofabrication, Graphic Communication, Robotics & Control Systems, and General Technology. We also have a new multidisciplinary degree offered in Entertainment Technology. The Occupational Safety & Environmental Health majors enjoy top-notch education in contemporary facilities. We also offer a Master of Education in Technology and Innovation, and are the first in Pennsylvania to offer an opportunity for early childhood education majors to earn an integrative STEM education endorsement on their teaching certificate.

Applied Engineering, Safety & Technology is housed in Osburn Hall, which has over twenty modern labs that address a comprehensive variety of technologies. We also have a diverse faculty who specialize in teaching in these labs, working with and advising students to assist them in reaching their educational and career goals. A dedicated support team and graduate assistants also staff the department to offer support and independent learning opportunities for our students. All of our degree programs have been accredited or endorsed by national or international professional organizations responsible for ensuring quality in program preparation. So, rest assured that students in this department will be prepared to be highly productive professionals in their chosen fields.

Thank you for taking some time to get to know Applied Engineering, Safety & Technology. As you tour Osburn Hall today, feel free to ask any student or staff member any questions you might have.

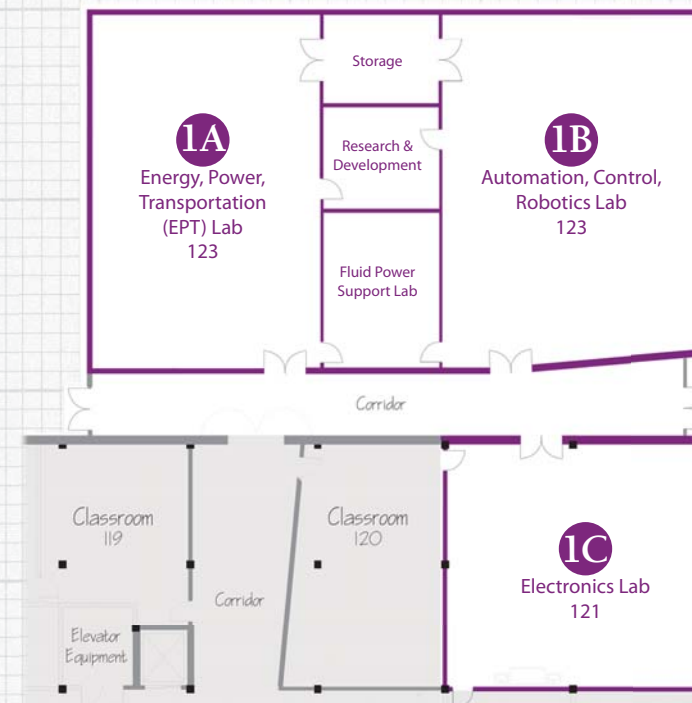


Applied
Engineering
Safety &
Technology
Self-Guided Tour

First Floor Laboratories

Electronics/Control/Robotics Area

- 1A** The **Energy, Power & Transportation Laboratory** supports lab experiences with conventional and alternative energy sources, electricity, fluid power, mechanisms and various forms of transportation including air, land, water and space.
- 1B** The **Automation, Control & Robotics Laboratory** introduces students to the fundamentals of industrial control. Advanced students study programmable logic controllers, PID loop tuning, fluidics, and robotics.
- 1C** The **Electronics Laboratory** serves students' needs from entry level to advanced courses in electrical and electronic circuits to wireless technology.



Degree Programs

Applied Engineering & Technology Management

- Advanced Manufacturing: BS, AT
- Computer-Aided Drafting & Design: BS, AT
- Construction Technology: BS, AT
- General Technology: BS
- Graphic Communication: BS, AT
- Nanofabrication Technology: BS, AT
- Robotics & Control Systems: BS
- Control Technology: AT

Occupational Safety & Environmental Health

- Bachelor of Science (BS)

Technology & Engineering Education

- Bachelor of Science in Education (BS Ed)
- Optional concentration in Engineering Design Education

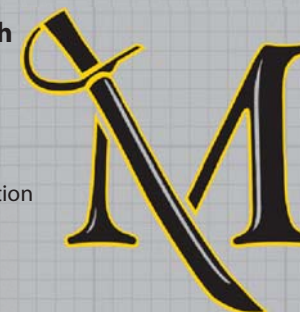
Graduate Education

- Master of Education in Technology & Innovation
- Post-Baccalaureate Certification

Applied Engineering, Safety & Technology

Legend:

- CADD/Graphic Communication
- Electronics/Control/Robotics
- Manufacturing/Construction
- Occupational Safety & Environmental Health
- Technology & Engineering Education



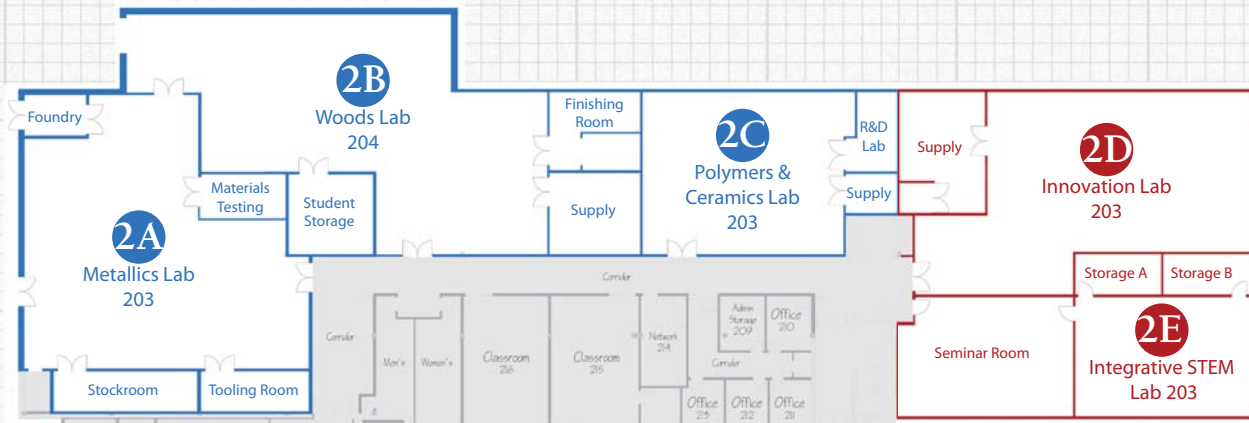
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Second Floor Laboratories

Manufacturing/Construction Area & Technology & Engineering Education Area



Third Floor Laboratories

CADD/Graphic Communication Area & Occupational Safety & Environmental Health Area



Legend:

CADD/Graphic Communication

Electronics/Control/Robotics

Manufacturing/Construction

Occupational Safety & Environmental Health

Technology & Engineering Education

Lab Descriptions

- 2A** In the **Metallics Laboratory**, students have experiences with manual and CNC metalworking methods and processes. Design and processing decisions are analyzed using precision measurement and various mechanical testing techniques.
- 2B** The **Woods Laboratory** focuses on wood and composite production processes for courses in manufacturing and construction. Processes include computer numerical control (CNC) and traditional woodworking equipment.
- 2C** This **Polymers & Ceramics Laboratory** focuses on polymer ("plastics") and ceramic materials and processes, including thermoforming, injection molding, blow molding, foam expansion, mechanical forming, casting, and mold development.
- 2D** The **Innovation Laboratory** is dedicated to teaching the processes of design and manufacturing – these processes include how to use creativity to ideate, develop, model, prototype and promote designs
- 2E** The **Seminar and Integrative STEM Laboratory** provides K-12 Technology & Engineering Education teacher preparation students with a classroom and laboratory for engaging in problem-based and design-based learning by doing activities.
- 3A** The **Advanced CADD/Rapid Prototyping Laboratory** provides students with 3D printing and rapid prototyping technologies to produce aesthetic and functional models directly from their CAD designs.
- 3B** The **Drafting & Design Laboratory** is equipped with large drawing tables and drawing resources to communicate ideas on paper from illustrations to technical schematics.
- 3C** The **CADD & General PC Laboratory** gives students access to a broad range of technical software during, and outside of class time.
- 3D** The **Digital Publishing Laboratory** is used for designing digital solutions for print and web media. Industry standard hardware and software is used to develop technically sound digital publications.
- 3E** The **Print Production Laboratory** is for hands-on learning related to the Graphic Communication industry. It features offset lithography, flexographic printing, screen printing, digital printing and other processes.
- 3F** The **Graphic Communication R&D Laboratory** is a testing and evaluation area for the various materials and processes involved in creating print and digital/web media.
- 3G** The **Package Engineering Laboratory** is a space for the application of graphics and packaging concepts. Package structures are designed and developed into package prototypes.
- 3H** The **Confined Space & Ventilation Laboratory** is equipped with a simulator used to provide students with hands-on experience on confined space entry procedures.
- 3I** The **Fire Protection & Hazardous Materials Laboratory** allows students to conduct experiments in chemical flammabilities, heat transfer, extinguishing agents, vapor and dust explosions, and hazardous material spill response.
- 3J** The **Safety Engineering Laboratory** engages students with hands-on activities including, but not limited to, machine guarding techniques, flammable & combustible liquid dispensing, hoisting equipment, and personal protective equipment.
- 3K** The **Industrial Hygiene Laboratory** is where students learn to calibrate air sampling pumps, selection of appropriate respirators, and fit testing protocols. They familiarize themselves with procedures for monitoring heat stress, conduct sampling, and calibration of equipment.