



<http://www.lcctc.edu>

Electromechanical Technology

CIP – 15.0403

Instructor: Maxwell Peak

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QUESTIONS?

Contact the School Counselors:

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Every Learner, Every Day, Career-Ready in Every Way!

Lebanon County Career and Technology Center

Mission Statement

The Mission of Lebanon County Career and Technology Center is to provide all students with quality career and technical education that prepares students for high skill, innovative, and in demand occupations to be career ready in a global economy.

Our Vision

The Vision of the Lebanon County Career and Technology Center is to lead the transformation and expansion of career and technical pathways, continuously improving and diversifying educational offerings, bridging the gap between evolving industries and skilled talent.

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Electromechanical Technology

Program Description: The Electromechanical Technology program teaches students how to use basic engineering and technical skills in both mechanical and electrical work. Students learn about the design, building, testing, and repair of electromechanical systems like automatic control systems and motors. Students are also introduced to the basics of robotics and PLCs. The program includes basic hydraulics and pneumatics, as well as a strong focus on safety and motor control. Hands-on training gives students real experience to prepare them for real-world jobs.

Two Year Half-Day Program

Year One: 8:00am – 10:25am (36 weeks – 3 credits)

Year Two: 11:25am – 2:00pm (36 weeks – 3 credits)

Program Costs:

Students are required to purchase the following at an estimated cost of \$100.

- Uniforms
- Work Boots

Job Titles – Career Pathways:

- 17-3023 – Electrical and Electronic Engineering Technologists and Technicians (PLC Programming- PLC Technicians)
- 17-3024 – Electromechanical Technicians
- 49-9071 – Maintenance and Repair Workers, General
- 49-9041 – Industrial Machinery Mechanics
- 49-2094 – Electrical and Electronics Repairers, Commercial and Industrial Equipment
- 49-2095 – Electrical and Electronics Repairers, Powerhouse, Substation, and Relay

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CTC Knowledge Transfers to College Credits at:

(www.collegetransfer.net select search and SOAR credits at the bottom)

Students in the Electromechanical Technology program may qualify to earn SOAR credits, that is, college credits awarded for skills and tasks mastered during the technical program when they continue in the same or related field at a partnering college.

These credits may be accepted at partnering colleges such as:

- Delaware County Community College
- Harrisburg Area Community College
- Luzerne County Community College
- Northampton County Area Community College
- Reading Area Community College
- Rosedale Technical College
- Thaddeus Stevens College of Technology

Depending on the college and program, students may be eligible to receive up to 15 college credits through SOAR for Electromechanical Technology/Electromechanical Engineering Technology.

NOCTI

National Occupational Competency Testing Institute (NOCTI) provides industry-based credentials and partner industry certifications for students enrolled in career and technical education programs.

PDE and Local Credentials and Certifications

Electromechanical Technology (CIP 15.0403)

1- Primary Credentials and Certifications

- NOCTI End-of-Program Assessment – Pennsylvania Department of Education approved
- OSHA 10-Hour General Industry Safety Certification

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- Snap-on NC3 Multimeter Certification (Digital Multimeter Training)

2- Additional Possible Credentials and Certifications

Students may also have the opportunity to earn additional industry-recognized credentials and certifications through the Electromechanical Technology program

Industry Credentials	Credential Provider	Industry Credential Code
Fundamentals of Electricity AC/DC	National Coalition of Certification Centers	1075
Fundamentals of PLCs - Allen Bradley/Siemens	National Coalition of Certification Centers	1078
Mechatronics Certification Test - Industrial Electricity 1	PMMI	1004
Mechatronics Certification Test - Programmable Logic Controllers (PLCs) 1	PMMI	1009
C-101 Certified Industry 4.0 Associate - Basic Operations	Smart Automation Certification Alliance	990
C-102 Certified Industry 4.0 Associate - Advanced Operations	Smart Automation Certification Alliance	991
C-202 Electric Motor Control Systems 1	Smart Automation Certification Alliance	994
C-204 Motor Control Troubleshooting 1	Smart Automation Certification Alliance	995
C-206 Electrical System Installation 1	Smart Automation Certification Alliance	996
C-210 Mechanical Power Systems 1	Smart Automation Certification Alliance	1000
C-215 Robotic Operations 1	Smart Automation Certification Alliance	1001

About Your Instructor

Instructor Name: Maxwell Peak

Hire Year: 2026

Biography

I began my career in the electro-mechanical field after graduating from Thaddeus Stevens College of Technology with an associate degree in Electro-Mechanical Technology. I have over 9 years of industry experience working for companies such as Nestle Purina.

Throughout my career, I have gained hands-on experience in industrial maintenance, troubleshooting, mechanical and electrical systems, and preventative maintenance. I look forward to bringing my industry knowledge and experience into the classroom to help students develop the skills they need to succeed in their future careers. In my spare time I enjoy riding my motorcycle, going to the gym, playing board games, reading, and spending time with my family.

Education

Thaddeus Stevens College of Technology

- Associate degree in Electro-Mechanical Technology

Certifications and Awards

- TWIC Card
- Basic Plus Safety Training

Work Experience

- Mars Incorporated – Reactive Maintenance Technician
- SAI Gulf – Regional Field Service Technician
- Nestle Purina – Industrial Maintenance Technician
- Tyson Foods – Maintenance Mechanic

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Electromechanical Technology Behavior and Safety Procedures

1. Students must follow all shop and lab safety rules at all times.
2. Students are required to complete the safety training program and earn safety certification before using any tools or equipment.
3. Personal electronic devices are not allowed in the lab or shop area.
4. Proper PPE (Personal Protective Equipment) such as safety glasses, gloves, and closed-toe shoes must be worn at all times.
5. Any injury or accident, no matter how small, must be reported immediately to the instructor.
6. Tools and equipment must be used only for their intended purpose and returned to their proper location after use.
7. Horseplay, running, or unsafe behavior will not be tolerated in the lab or shop area.
8. All electrical circuits must be de-energized before any work is performed.
9. Students must follow Lockout/Tagout (LOTO) procedures when working on live or potentially energized equipment.
10. Only insulated tools and approved test equipment may be used on electrical panels or wiring.
11. Never work on electrical systems alone — an instructor or partner must always be present.
12. All breakers, disconnects, and switches must be clearly labeled and operated only with instructor approval.

Electromechanical Technology Tools & Equipment (Major Focus Tools/Equipment)

The following is a list of tools and equipment that students will receive instruction on:

- Electrical Trainers and Lab Boards
- Industrial Control Panels and PLC Trainers
- Basic Electrical and Mechanical Hand Tools
- Multimeters and Electrical Test Instruments
- Conduit Benders and Wiring Tools
- Motors, Relays, Contractors, and Sensors
- Pneumatic and Hydraulic Training Stations
- Lockout/Tagout Safety Equipment

Grading Scale

The LCCTC grading system incorporates three components: competencies (skill— 33.3%), career skills (work ethic— 33.3%), and theory (knowledge—33.3%). Each academic class implements a performance evaluation/student grading system that incorporates career skills (work ethic), and theory (knowledge). Each component is weighted equally.

Please refer to the Student Handbook, available on the school website at <http://www.lcctc.edu> for a complete list of grading components.

Progress Reports

Students will receive a “Progress Report” each mid-quarter through the mail for any student with a 70% or less, and a report card will be given to each student at the end of each quarter. It is the student's responsibility to share this information with their parents/guardians. Both reports will utilize student performance data obtained from competencies, career skills, and theory grades.

Please Note: 40% is the minimum grade for the first 3 marking periods. However, students with excessive absences may be assigned an earned grade with administrative approval. There is no minimum grade for the 4th marking period.