

**Automotive Technology**

**Program Review**

**2024-2025**

### **Occupational Advisory Committee Members**

|                   |                               |
|-------------------|-------------------------------|
| Cody Krol         | Independent Auto Repair       |
| Matthew S. Conard | Shop Foreman/Team Leader      |
| Robert DePue      | Auto Technician Dealership    |
| Lee Kope          | Post-Secondary Education      |
| Giuseppe Pugliese | Former Student Representative |
| Joseph Thompson   | Student Representative        |
| Elizabeth Maiter  | Supplier                      |
| William Morales   | Auto Technician               |
| Don Schnell       | Dealer Service Manager        |
| Ryan Kinkade      | Dealer Service Manager        |
| Chris Bors        | Dealer Service Manager        |

### **Executive Advisory Committee Representatives**

|                  |                    |
|------------------|--------------------|
| Joseph Daino Jr. | EAC Program Review |
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## **EASTERN CENTER FOR ARTS AND TECHNOLOGY AUTOMOTIVE TECHNOLOGY PROGRAM REVIEW REPORT OCCUPATIONAL OUTLOOK**

The U.S. Department of Labor, Bureau of Labor Statistics, predicts that nationally 67,800 Automotive Service and Repair Technicians jobs will need to be filled from 2023 to 2033. Total jobs for technician positions are expected to rise from 794,600 in 2023 to 815,900 in 2033. The U.S. Department of Labor estimates that the need for Automotive Service and Repair Technicians is projected to grow by 3% yearly through the year 2033. The service and repair industry is expected to add 21,300 new jobs and 29,700 jobs to replace retiring technicians.

Pennsylvania labor statistics compiled by O\*NET Online predicts that Automotive Service and Repair Technician employment is expected to increase from 32,230 jobs in 2020 to approximately 32,480 in 2030. This is a yearly projected growth of +1% or 3,180 new or replacing retiring workforce jobs. Demand for Technicians will increase as the population, economy and alternative modes of transportation grow. Attendees of technical schools or formal automotive training centers will have the best opportunities for success in the automotive industry. Graduates from EASTERN will enjoy a head start, and have the basic knowledge and skills, to enter post-secondary and factory training programs. With this training they will have the fundamentals to continue in Dealerships, Franchised and Independent Service Centers. Service work tends to remain relatively stable through lulls in the economy. The age of vehicles still being driven daily is at an all-time high. This increases the need for competent, trained technicians to keep them operating safely, and in a state of good repair.

The United States Department of Labor, Bureau of Labor Statistics, State Occupational Employment and Wage Estimates for Pennsylvania reports that Automotive Service and Repair Technicians jobs in the Tri-County area (Bucks, Montgomery, and Philadelphia Counties) since May 2020 have grown by 3.8%. Service and repair jobs are the second-highest percentage of employment in the Automotive Industry in Pennsylvania. The U. S. Bureau of Labor Statistics looks favorably to increased employment opportunities straight through 2026 for qualified Automotive Service and Repair Technicians. Growth can be expected locally in annual job openings with 40% of the jobs due to business growth, and 60% due to attrition and the retirement of incumbent technicians. Employers prefer to

hire those with technical school or apprenticeship training. Some technicians still learn the trade informally on the job, but those days are coming to an end, due to the complex technologies designed into the vehicles of today.

Job prospects for Automotive Service and Repair Technicians are expected to be excellent, particularly for those with training from an accredited technical school or with formal apprenticeship training.

## **SUMMARY OF GRADUATE PLACEMENT**

According to data compiled by EASTERN in Fall 2024, Automotive Technology students from the 2023-2024 graduating class had a 84.2 % placement rate. Automotive Technology students from the 2023-2024 graduating class entered post-secondary related education, at a rate of 52.6%. From 2020-2024 96.9% of Automotive Technology students achieved the EASTERN completion standard of a final grade of 70% or higher, and completion of all tasks in the career objective. EASTERN'S Key Indicators of Program Success (KIPS) Data for the Pennsylvania Department of Education required end of course assessment (NOCTI) scores of Competent and/or Advanced indicate that the Class of 2022 scored 63.2%, the Class of 2023 scored 68.8%, and the Class of 2024 scored 57.1%. The Automotive Technology OAC has reviewed the NOCTI Testing Scores and provided their comments on the data and has voiced their opinions on ways to increase performance in electrical training, meter usage and electrical diagnostic skills. The purchase and use of 8 additional ATech electrical trainer boards and the GM SET basic electrical training program allows students to have their own practice and training equipment to further enhance their electrical skills.

## **PROGRAM VIABILITY**

The Automotive Technology Program at EASTERN is experiencing steady enrollment and has had a waitlist of up to 15 students the past three years. Marketing the Automotive Technology Program and the benefits it could provide for students in their future is a continuing activity. EASTERN'S Career Expo provides students and counselors more

insight into the Automotive Technology Program through demonstrations in the shop.

Open House continues to use local dealerships to display current model vehicles and diagnostic equipment. EASTERN has displayed traditionally powered gasoline vehicles, along with Hybrids, 100% Electric propelled vehicles, and Compressed Natural Gas-powered vehicles. This exposed parents and students to the industry and educational opportunities available at EASTERN. Open House exposure is highly effective.

Input from local Dealerships, Independent, and Franchised Service Facilities support the demand for technicians in the industry. Local dealerships such as Faulkner Infinity, Maserati and Thompson Lexus have participated in hiring students through EASTERN'S School to Career program. Kennedy Ford participates in the Ford New Technician Automotive Career Exploration (ACE) program where students can participate in factory training and employment once 18 years of age. Bryner Chevrolet also participates in the GM SET program that makes factory training available to EASTERN students and employment once 18 years of age. EASTERN has a constant list of job opportunities for students. Many students are not 18 years of age and do not meet some business's age criteria, but job offers are forwarded to past students who have reached 18 years of age for their consideration. During our NATEF/ASE Reaccreditation this past year, the NATEF On-Site Team scored the Automotive Program, its curriculum, equipment, and certifications excellent and renewed the Accreditation until 2029.

The Automotive Technology Occupational Advisory Committee recommends and supports the continuation of the Automotive Technology Program at EASTERN. This recommendation is due to the (1) continuing market demand for technicians in new jobs and jobs replacing retiring workforce, (2) improved placement rates of graduates through cooperation of business and organizations, (3) implementation of ASE Entry-Level Certifications, (4) implementation of Mobile Air Conditioning Certification accessibility, (5) programs and opportunities through Auto Dealers Association that spotlight student achievement.

## **Summary of Industry Trends**

1). What are the current and/or new industry certifications available for students in the program?

Safety and pollution awareness is critical in the automotive industry. Currently, all students are certified in SP2 Safety and SP2 Pollution Prevention and (EV) Electric Vehicle safety awareness. Students are tested and certified by Valvoline Motor Oil Company after tutorials and videos about motor oil classifications, additives, properties, and handling of waste oil.

Students can attain 609 Refrigerant Recovery and Recycling Certification from Mobile Air Conditioning Society (MACS) This certification covers regulations and laws about working on air conditioning systems, recycling, recovering and purchasing refrigerant. This certification is required to work on any air-conditioning system or purchase refrigerant.

EASTERN is registered as a testing facility for ASE Student Entry-Level certification. Students are offered a two-year ASE entry-level certification in Maintenance and Light Repair (MLR), Engine Repair, Brakes, Steering and Suspension and Electrical/Electronic Systems.

2). Are there any changes regarding “Green Technology” that may affect the program and the respective industry?

Green Technology in the Auto Industry is ever evolving by recycling used plastics, batteries, reducing tailpipe emissions on internal combustion engines and the increased hybrid and electric technology used on new vehicles. Students are introduced to new technologies in engine performance, hybrid and all-electric vehicle systems. Electric Vehicle (EV) safety awareness certification is a new certification available to students. Autonomous vehicle systems are brand specific and require factory training and certification to work on these systems.

3). Environmental protection is an increasing factor in the planning and conduct of many businesses. What are the considerations that must be addressed in the curriculum to facilitate these concerns? (i.e. OSHA

regulations, safety concerns, chemical usage, and disposal)?

OSHA is currently working on a program and certification for Auto Repair facilities. This certification is expected to be available soon. Automotive Technology curriculum teaches students about Personal Protection Equipment (PPE), safety while working in a shop environment, Material Safety Data Sheets (MSDS), chemical use and safety concerns, working with shop tools, and hazardous waste disposal. SP2 Safety and SP2 Pollution prevention training frequently cite OSHA regulations, safety concerns, chemical usage, and hazardous waste disposal.

4). Are there any post-secondary opportunities (dual enrollment, articulations) for graduates of the program?

Eastern Center for Arts and Technology has articulation agreements with many post-secondary training facilities. Post-secondary training centers send individual student surveys to the instructor to evaluate student proficiency and understanding of a task section. Students can test out of proficient sections of post-secondary training to reduce tuition.

5). What are current industry trends regarding employers as well as entrepreneurial opportunities?

Industry employment trends continue to be favorable for graduating students. Because of the population and saturation of automobiles in the tri-state area, job growth is projected to be steady or increase in the future. There will be an increased need for both Advanced Level 'B' Technicians and MLR Technicians as the industry trend continues. Many jobs are projected to become available to fill retiring technician positions. Maintenance and Light Repair (MLR), routine maintenance services are now the profit generators for dealerships. This will afford to graduate students entry-level positions in dealerships, and independent repair shops.

Entrepreneurial opportunities exist for well-trained technicians in the engine performance, aftermarket installation, and specialized system repair shops.

## **PROGRAM RECOMMENDATIONS**

Recommendation 1: The Occupational Advisory Committee recommends that all students enrolled in program complete the ASE Entry-Level Certification Program including the areas: Maintenance and Light Repair (MLR), Engine Repair, Brakes, Steering and Suspension, Electrical/Electronic systems, and Mobile Air Conditioning Certification.

Recommendation 2: The Occupational Advisory Committee recommends the replacement of the Hunter Alignment machine and associated worn out/outdated accessories.

Recommendation 3: The Occupational Advisory Committee recommends continued budgeting for hand tool and scanner updates.

The Automotive Technology program enrollment has been at capacity for the past 6 years. Additional hand tools and toolboxes are needed at workstations for student use to complete tasks.

Recommendation 4: The Occupational Advisory Committee recommends that updates for equipment be purchased such as updates for Ethos student scanners, and Tablets.

Many students are visual learners and require additional support when working on tasks in the shop. Tablets give students the opportunity to watch a video of skill while completing the task. Many repair shops are using apps to write repair orders and document damage to vehicles before they are brought into a repair facility. Tablets give students the opportunity to use and become familiar with dealer associated apps and repair procedures.

Recommendation 5: The Occupational Advisory Committee recommends that the instructor attend classes on new and emerging automotive technologies, to include: Automotive AI, Electrification, and Self-Driving vehicles,

## **Implementation Timeline**

### **Program Review Purchases 2025 through 2028**

#### **School Year- 2025-2026**

6 ½” drive electric Impact guns

\$2000

6 Digital ½” torque wrenches to replace old beam style torque wrenches

\$1620

6 Digital 3/8” torque wrenches to replace old beam style torque wrenches

\$1266

10 Cordless drills w/2 batteries/chargers each to replace current drills

\$1800

NATEF/ASE Annual Summer Training

\$3,500

Replace Theory room furniture tables and chairs

TBD

**Total: \$10,186**

#### **School Year- 2026-2027**

Replace the Hunter Alignment Machine and Associated accessories -  
purchased by Grant in 2024-2025 school year

NATEF/ASE Annual Summer Training

\$3,500

**Total: \$3,500**

**School Year- 2027-2028**

Replace three of the two post lifts that are near 30 years old  
\$ 38,000

NATEF/ASE Annual Summer Training  
\$3,500

**Total: \$41,500**

**Program Review Total: \$55,186**

