Why Columbus State?

Local: Columbus State's Automotive Technology Facility is only a short drive from anywhere in Central Ohio.

Flexible: All Automotive Technology courses are offered both during the day and in the evening, allowing students to plan around busy schedules.

Affordable: Our comparatively low tuition rates offer a high return on investment thus providing a substantial value.

Learning Automotive at Columbus State

Columbus State's Automotive Technology programs prepare students for positions as Service Technicians or Service Advisors. Through classroom and hands-on experiences, the curriculum prepares graduates for a wide variety of job opportunities in new car dealerships, independent repair shops, retail parts stores, and fleet repair facilities. Courses are designed to help students prepare for Automotive Service Excellence (ASE) certification examinations.

Save For the Future, Don't Pay Off the Past

College debt is a very real problem for many students. Columbus State offers the most affordable option in the region, and more than 70% of our students do not take on any student loan debt. To complete a five-semster (two-year) associate degree program in Automotive Technology cost approximately $9,300, as compared to most private automotive training programs that range from $26,000 to $38,000.

COLUMBUS STATE
AUTOMOTIVE TECHNOLOGY

For more information, contact:

Steve Levin, Associate Professor of Automotive Technology
614-287-2788
slevin@cscc.edu

nc3 National Coalition of Certification Centers

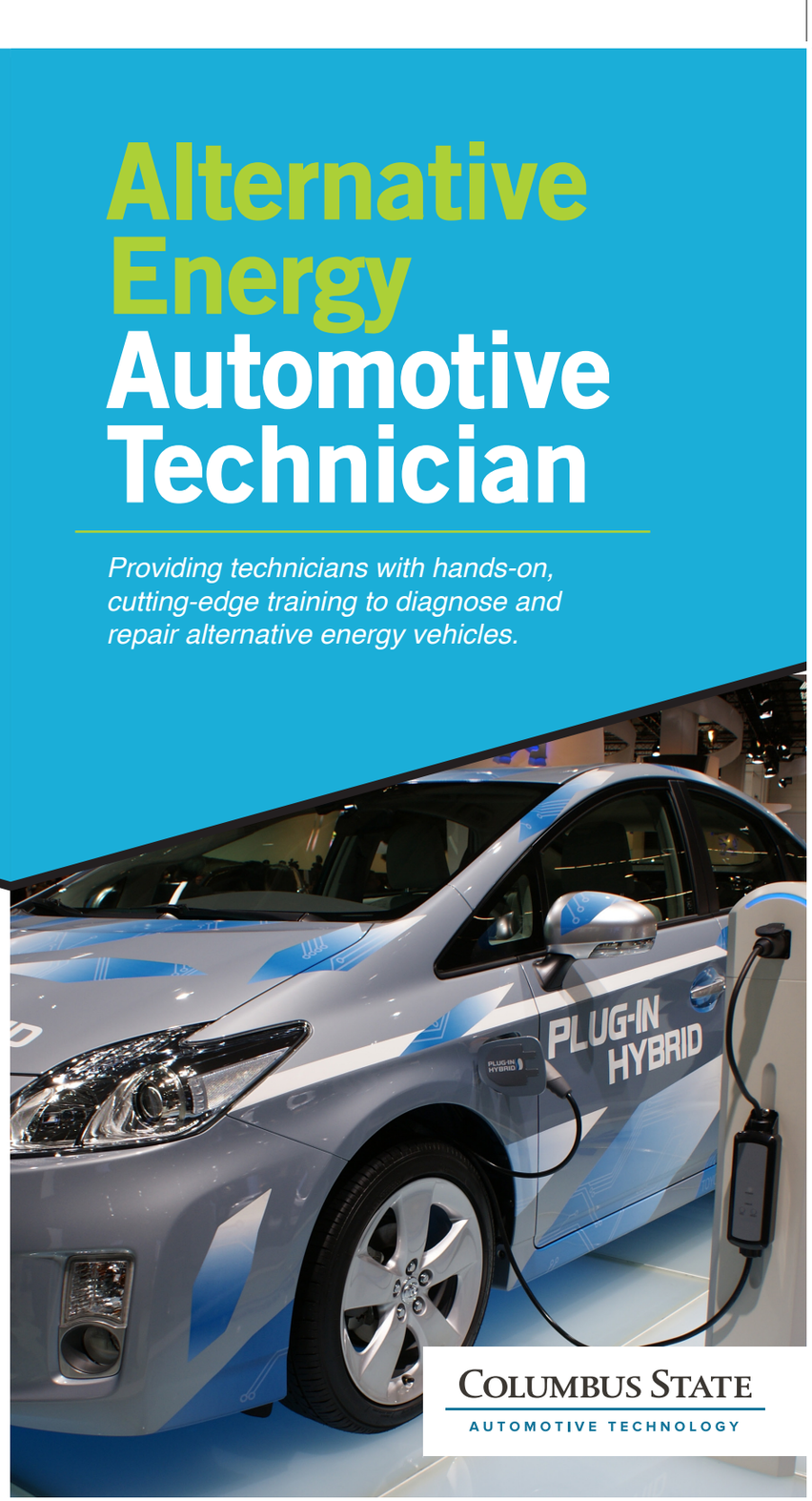
Snap-on Certification Center

ASE NATEF Improving Programs Through Accreditation

This material is based upon work supported by the National Science Foundation under Grant No. 1600689

Alternative Energy Automotive Technician

Providing technicians with hands-on, cutting-edge training to diagnose and repair alternative energy vehicles.



COLUMBUS STATE
AUTOMOTIVE TECHNOLOGY

A Changing Industry: Alternative Energy

In a dynamic energy market, electric and alternative gaseuous fueled vehicles are proving to be a major disruptor in the automotive industry.

Smart City

In June 2016, Columbus won the U.S. Department of Transportation $40 million Smart City Challenge by pledging to make investments, programs and creative incentives for energy efficiency, transportation electrification, and greenhouse gas reduction that is environmentally and financially sustainable. With this investment, Central Ohio is set to become a national leader in alternative energy vehicle adoption. **The demand for automotive technicians with knowledge of advanced technologies will be as high in Central Ohio as it is anywhere in the country.**

Did You Know?

MAJOR MANUFACTURERS:
Large automotive manufacturers are moving towards alternative energy. For example, Ford Motor Company plans to make 40% of its fleet electric by 2020. Through investment in fuel cells and energy efficiency, Honda plans to reduce its CO2 emissions by 50% in the next 30 years.

FLEETS:
Local governments and corporate fleets are adopting alternative energy vehicles at a rapid rate. In 2015, the number of AFVs owned by governments and corporate fleets grew by 318%.

A New Curriculum to Meet Industry and Student Needs

Columbus State is enhancing current curriculum and developing new courses that will address a local workforce need for technicians who are knowledgeable about the diagnosis and repair of alternative energy vehicles of all types. When combined with existing courses or industry experience, the two new courses will create a stackable certificate that will prepare students to sit for two Automotive Service Excellence (ASE) certifications.

Electric/Hybrid Vehicle Courses

Currently the most practical alternative energy vehicle choice for private owners, there are just under half of a million hybrid and electric vehicles sold each year. The U.S. Energy Information Administration predicts that the number of electric vehicles on the road will grow by 15% by 2050.

AUTO 2190 Hybrid Vehicles: Theory & Operations

This course presents the theory and operation of hybrid vehicles. This is an informative course designed to provide a general overview of various hybrid vehicle systems. Proper safety precautions and procedures needed to service the basic systems of hybrid vehicles will be discussed.

AUTO 2390 Advanced Hybrid Vehicles: Diagnosis and Repair

This course builds on the fundamentals covered in AUTO 2190 and continues the study of automotive engine performance and electrical systems. Hybrid, plug-in hybrid, and electric vehicles will be emphasized. System safety, diagnosis, live car servicing, and various manufacturer's systems will be explored through lecture and lab activities. An expected outcome of AUTO 2390 should be students are prepared to pass the ASE Light Duty Hybrid/Electric Vehicle Specialist Test (L3).

Alternative Gaseous Course

In the last decade, the number of alternative energy fueling stations in the US has increased by 1000%. Development of infrastructure and advances in technology will continue to increase the need for technicians with knowledge of alternative gaseous fuels.

AUTO 2391 Alternative Fueled Vehicles: Diagnosis and Repair

Compressed natural gas (CNG), hydrogen fuel cell, propane, bi-fuel, liquefied natural gas, ethanol and biodiesel vehicles will be explored. System safety, fueling, diagnosis, live car servicing, and various manufacturer's systems will be explored through lecture and lab activities. An expected outcome of AUTO 2391 should be students are prepared to pass the ASE Alternative Fuels Certification Test (F1).

Earn and Learn Opportunities

The automotive technology department firmly believes that the best way to learn to become a highly skilled automotive technician is through a combination of on-campus learning and real-life work. The TechLink program is a flexible internship model that allows students to gain part-time, paid employment at one of 140 partner employers. Students are able to enter the internship program once faculty members feel they have the appropriate level of technical skills and are ready to commit to becoming an apprentice technician. Faculty will help place Alternative Energy Certificate students with employers that are servicing alternative energy vehicles, so that students are able to put the knowledge they gain in the classroom into practice.