TECHNOLOGY CREDIT EDUCATION (TCE)

TCE 090 HVAC Diagnostics   3 sem. hrs.
This comprehensive course introduces HVAC technicians to cutting-edge technologies and practices in the field. The course is divided into three parts: (1) IoT Fundamentals, covering smart probes and the measureQuick App for accurate diagnostics; (2) Applied IoT Solutions, focusing on airflow optimization using the Digital TrueFlow Air Handler Flow Meter; and (3) Integrated IoT Solutions, addressing the transition to A2L refrigerants. Students will gain hands-on experience with IoT tools for system diagnostics, airflow testing, and safe handling of low-GWP refrigerants. The course prepares technicians to leverage digital technologies for precise HVAC system analysis, optimization, and environmentally friendly practices. Weekly sessions include practical skill-building activities in a state-of-the-art learning lab.

TCE 100 Intro to Information Technolog   3 sem. hrs.
Provides students with an overview of key pathways in frontier technologies: artificial intelligence, data analytics, cybersecurity, and programming. Covers fundamental concepts, applications, and interconnections between these rapidly evolving fields. Students explore potential career paths, align interests with relevant skill sets, and gain insights into future certificate and degree programs. Course includes lectures, hands-on activities, and real-world case studies to help students make informed decisions about their future studies in technology. Weekly sessions enhance learning through practical skill-building activities.

TCE 101 FAA Drone Technology   3 sem. hrs.
Provides foundational knowledge and hands-on experience in drone operations, preparing students for safe and effective drone use and basic certification. Covers drone mechanics, FAA regulations, safety, and applications. Instruction includes drone anatomy, aerodynamics, flight controls, mission planning, and data collection. Emphasis is placed on developing essential drone camera skills for capturing professional-quality video. Students develop practical flying and camera operation skills through exercises and simulations. The course includes a final project demonstrating comprehensive drone operation and videography proficiency. Weekly sessions enhance learning through practical skill-building activities and coding basics.