Certified Transit Technician Education Program
Leveraging Technology for Innovative Technical Training

About the Program
The CTTEP is a State of Florida Post-Secondary Adult Vocational (PSAV) educational program consisting of three separate curricula, Transit Technician 1, 2 and 3. The program was developed in cooperation with and input from the Florida Transit Maintenance Consortium (FTMC), the Florida Department of Transportation (FDOT), the USF Center for Urban Transportation Research (CUTR), Hillsborough Community College (HCC), and technicians and trainers from various transit properties throughout the state.

The CTTEP covers subject areas that are specific to transit vehicle maintenance. Including:
- Preventive Maintenance
- Electrical System
- Wheelchair Lift/Ramp
- Diesel Engine Preventive Maintenance
- Steering and Suspension
- Hydraulics
- Diesel Electrical
- Diesel Engine
- Electronics
- Drive-Train
- Brakes/Air System
- Alternative Fuels System
- Heating and Air-Conditioning
- Transmission and Engine Diagnosis

The curriculum is delivered through a combination of classroom instruction, eLearning, and on-the-job training. Upon completion of the 15 modules that comprise the three tracks, students will be awarded the PSAV certificate from HCC. Students will also become ASE and FTMC certified as they progress through the program. Upon successfully completing the CTTEP and obtaining a PSAV certificate, qualified transit technicians may apply to participating community colleges in Florida and request articulation of the certificate. When approved, up to 33 credit hours may be granted toward fulfillment of the requirements for an AS degree.

CUTR Edge Products-Training
Virtual Hands-On Training (VHOT): This concept allows students to do real-time troubleshooting over the Internet while miles away at their worksite. Students from around the state make actual repairs to equipment that is located at a remote facility. A defect is inserted into a bus, and all parties log on to the Internet via software. The instructor starts the troubleshooting software and hands control over to the student, who is at his/her worksite location. The instructor monitors the student and acts as his/her assistant, connecting cables, starting the bus, etc. A mobile web camera is also used, enabling the student to view connections, pins, and other components. When the repair is made by the assistant, the student clears the code and the bus is repaired. This element of the program is cutting-edge distance learning and allows the instructor to monitor troubleshooting techniques, hands-on/OJT performance, decision making, and parts selection. Today’s student is comfortable with this arrangement and there are no time or distance restraints. Refresher or remedial training can be conducted when necessary and adds to the student’s longitudinal training goals.

3D Modeling: The methodology developed under this concept in partnership with a software development firm creates a 3D model distance learning structure that is computer based and student driven. This technique is used in conjunction with and separate from the classroom portion of instruction. Students can log on to the Internet and run through portions of the course while viewing 3D animated components and troubleshooting diagrams. This is an excellent tool that can be used for student familiarization prior to class and follow-on instruction when the student is conducting OJT at his/her location. Testing after instruction is built in to the module and can be set to advance the student through the module based on correct answers or redirect the student for additional instruction before progressing further. The learning responsibilities have been shifted in part to the student, facilitated by the instructor, and is in a format today’s student not only readily accepts but has been “wired” to excel in.

Computer Based Training (CBT): This concept has been used successfully to develop and provide CBT courses to public transit system personnel. CBTs are self-paced, online training courses that meld several modes of multimedia including video, photography, narration and text slides to improve retention by addressing multiple learning styles. CBTs provide an easily accessible, relevant training course when ever and where ever necessary. CBTs allow employees to manage and facilitate the learning process which empowers them to initiate and control their own career development and education. Our technicians have embraced this style of training and use it frequently to enhance their knowledge base.

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