Received by C&A 2/1/24

Washtenaw Community College

PROGRAM PROPOSAL FORM

Preliminary Approval – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.

Final Approval – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name:	Electric Vehicle (EV) Service Technician	**Program Code:**
Division and Department:	ATP - Advanced Transportation	**CTEVST**
Type of Award:	AA AS AAS **Cert.** Adv. Cert. Post-Assoc. Cert. Cert. of Comp.	
Effective Term/Year:	Fall 2024	**CIP Code:**
Initiator:	Shawn Deron / Justin Morningstar	**47.0604**

Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.	This program is being developed in coordination with the electric vehicle (EV) Department of Education (DOE) training grant known internally as the Power Project. In this program, students will develop an introductory foundation in both automotive components and systems used specifically in EVs and safety preparations and precautions when working around EVs in a lab environment. A mini-certificate (10 credit hours) will be nested within this 22-credit hour EV Service Technician certificate. This certificate is nested within a two-year degree (APOETT with EV concentration (EVSR)). This program utilizes some existing courses from the automotive services (ASV/ATT) program to provide the background for identifying and working with electrical systems from internal combustion engine (ICE) vehicles and low voltage systems. With support from state grants and funding, WCC will be able to revamp an existing lab space to host safety training and skill building techniques on emerging technologies in the transportation field to provide a strategic pathway for employment. • The EV industry is valued at **over $250 billion** • There are in excess of **10 million** EV's on the road • Over **6 million** plug-in EV's are sold per year • The electric vehicle industry is currently valued at **$500.48 billion**. • This figure is set to significantly grow in the coming years, reaching **over $1.5 trillion** in **2030** at a **CAGR of 17.8%**.

Need Need for the program with evidence to support the stated need.	This program is being developed in coordination with the electric vehicle (EV) DOE training grant known internally as the Power Project and as a result of collaboration with the EV jobs academy (EVJA), Center for Connected and Automated Transportation (CCAT), Detroit Drives Degrees Community College Collaborative (D3C3) along with the ATT advisory board discussions consisting of industry partners and leaders. These groups and employers were able to identify the key areas and skills needed for students to be successful in this career field.	
Program Outcomes/Assessment State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.	Outcomes 1. Identify safety standards and protocols when servicing electric vehicles. 2. Perform service according to the manufacturers' recommended maintenance intervals. 3. Diagnose and service EV batteries and operating sub-systems.	Assessment method 1. Outcome-related exam questions 2. Outcome-related exam questions 3. Outcome-related student achievement checklist

Curriculum List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list. Associate degree programs must provide a semester by semester program layout.	ASV 131 Automotive Electrical* - 4 credit hours ATT 180 Alternative Vehicle Fundamentals & Safety - 2 credit hours ATT 280 Introductions to Electric Vehicles (EV) - 4 credit hours ASV 256 Electrical & Electronic Systems* - 4 credit hours ATT 282 Electric Vehicle (EV) Energy Management - 4 credit hours ASV 130 Automotive Service* - 4 credit hours Total: - 22 credit hours (*Currently existing courses)
Budget Specify program costs in the following areas, per academic year:	**START-UP COSTS ONGOING COSTS** **Faculty** $. $. **Training/Travel** . . **Materials/Resources** . . **Facilities/Equipment** . . **Other** . . **TOTALS:** $. $.

Program Description for Catalog and Web site	In this program, students will be introduced to the skills need to perform as an entry level technician within the rapidly growing electric vehicle (EV) market. Students will learn how to identify and practice the safety standards and precautions needed when servicing EVs. Topics of study will include, but will not be limited to: EV service and maintenance procedures, EV specific tooling, high-voltage and low-voltage system diagnostics, and battery management system operation along with ever evolving new technologies incorporated in the production of EVs. This certificate will prepare students for EV-specific ASE testing required for the industry.
Program Information	**Accreditation/Licensure -** ASE Tests **Advisors -** Niki Lee, Justin Morningstar, Shawn Deron **Advisory Committee -** Same as ASV/ATT **Admission requirements -** **Articulation agreements -** TBD **Continuing eligibility requirements -**

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Identify safety standards and protocols when servicing electric vehicles.	ATT 280 - Outcome-related exam questions	Fall 2027	All sections of ATT 280	All students
Perform service according to the manufacturers' recommended maintenance intervals.	ATT 280 - Outcome-related exam questions	Fall 2027	All sections of ATT 280	All students
Diagnose and service EV batteries and operating subsystems.	ATT 282 - Outcome-related student achievement checklist	Fall 2027	All sections of ATT 282	All students

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally-developed rubric, external evaluation, other). Attach the rubric.

   Outcome-related exam questions will be scored using an answer key.
   Student achievement checklists will be scored with a departmentally-developed rubric.

2. Indicate the standard of success to be used for this assessment.
   The standards of success used for each outcome will be 70% of the students will score 70% or higher on the outcome-related questions or outcome-related rubric items.

3. Indicate who will score and analyze the data.

   Departmental Faculty will score and analyze the data for reporting.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Rocky Roberts	Rocky Robert	2/1/24
Dean	Jimmie Baber	Jimmie Baber	2/1/24
Please return completed form to the Office of Curriculum and Assessment (SC 257) or by email to curriculum.assessment@wccnet.edu. Once reviewed by the appropriate faculty committees, we will secure the signature of the VPI and President.			
Curriculum Committee Chair	Randy Van Wagnen	R Van	2-12-24
Assessment Committee Chair	Jessica Hale	J Hale	2/13/24
Interim Vice President for Instruction Approved for Development Final Approval X	Dr. Brandon Tucker		2/15/24
President	Dr. Rose Bellanca	Rose B Bellanca	2/18/24
Board Approval			2/27/24

Reviewed by C&A committees on 2/8/24