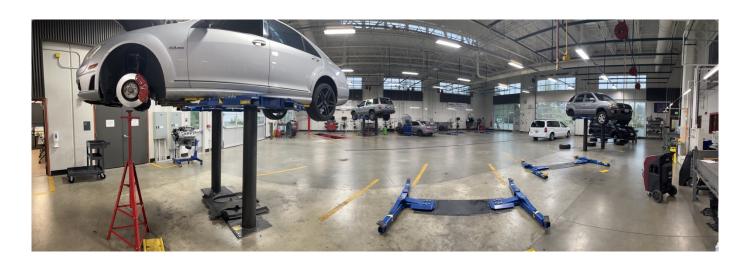
# DACUM Research Chart for Electric Vehicle Technician





# **Produced & Facilitated by**

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	DACUM Research Chart for Green River College's EV Technician										
DUTIES						-					
Gather vehicle					—— TASKS —						
information	A.01 Review repair order	A.02 Review service history	A.03 Research recalls	A.04 Research technical service bulletins	A.05	A.06	A.07	A.08	A.09	A.10	
Diagnose vehicle										,	
problem B	B.01 Inspect for damage	B.02 Scan vehicle	B.03 Research trouble code	B.04 Research manufacturer service bulletins	B.05 Research manufacturer recalls	B.06 Research code logic	B.07 Research symptoms diagnosis	B.08 Request additional expertise	B.09 Identify after- market add-ons	B.10 Determine root cause of failure	
Check vehicle											
safety	C.01 Identify low voltage vs. high voltage	C.02 Secure work area	C.03 Test personal protective equipment (PPE)	C.04 Put on PPE	C.05 Disable high voltage system	C.06 Verify high voltage disconnection	C.07	C.08	C.09	C.10	
Order vehicle											
parts	D.01 Identify needed parts	D.02 Identify whole assemble or module	D.03 Identify single- use parts	D.04 List required parts	D.05 Identify restricted parts	D.06 Order necessary parts	D.07	D.08	D.09	D.10	
Repair vehicle											
E	E.01 Research repair procedure	E.02 Identify special tools	E.03 Identify additional PPE	E.04 Review vehicle warranty	E.05 Verify interlock circuit	E.06 Repair vehicle fault	E.07 Configure replaced component	E.08	E.09	E.10	
Verify repaired											
vehicle <b>F</b>	F.01 Clear active codes	F.02 Perform test drive	F.03 Confirm freeze frame drive data	F.04 Return required parts	F.05 Ensure vehicle condition for return	F.06 Return vehicle to customer	F.07	F.08	F.09	F.10	
Document											
diagnosis & repair	G.01 Record diagnosis & completed repairs	G.02 Record component information	G.03 Report safety concerns	G.04 Print description of operation system	G.05 Provide documentation to service advisor	G.06	G.07	G.08	G.09	G.10	

## **Knowledge & Skills**

writing/reading

finesse

mechanical aptitude

certificates: ASE, factory, hybrid

communication comprehension

computer databases/programs

situational awareness

### **Behaviors**

integrity

strong work ethic

teachable patience

attn to detail

teamwork

positive attitude (on display in front of customers)

professionalism (polite)

tidy, organized

healthy respect for HV anger management

common sense

problem solver

process-oriented

## Tools/Equipment/Supplies

laptop & apps

HV multimeter - cat. 3

isometers

insulated tools

PPE; rubber gloves

lift table for batteries

shepherd's hook

forklift

cones

anti-static mat

charge balancers

common hand tools

cutting tools

#### **PPE**

gloves: inner liner, HV rubber, & leather

arc flash equipment

polycarbonate/electrically rated gloves

face shield

helmet

balaclava

safety glasses

### **Future Trends**

less wires, less strands

replaced w/ comms, software

fast-charging protocols - swapping electrolytes

more inductive charging stations

battery composition

in-car apps

autonomous functions

CASE: connected, autonomous, shared, electrified

shared vehicles (autonomous)

2035 EV goals

alt fuels

input from cameras, sensors

recycling tech

infrastructure

## Acronyms

DTC = diagnotic trouble code

P&A = price and availability

TSB = technical service bulletin

ADAS = advanced driver assisted systems

FTS = field tech specialist

ICE = internal combustion engine

HV = hybrid vehicle

BEV = battery electric vehicle