MASTER SYLLABUS

COURSE NUMBER – COURSE NAME
AUTO 253 – SUBARU UNIVERSITY TRAINING

Created by: Brandon Baldwin
Updated by: Brandon Baldwin

Canino School of Engineering Technology
Department: AUTOMOTIVE TECHNOLOGY
Semester/Year: SPRING 2020
A. **TITLE:** Subaru University Training

B. **COURSE NUMBER:** AUTO 253

C. **CREDIT HOURS:** 1 credit hour(s) per week for 15 weeks

- One hour (50 minutes) of lecture per week
- Two to three hours of lab or clinical per week
- Two hours of recitation per week
- 40 hours of internship

D. **WRITING INTENSIVE COURSE:** Yes ☑ No ☒

E. **GER CATEGORY:** None: ☒ Yes: GER

If course satisfies more than one: GER

F. **SEMESTER(S) OFFERED:** Fall ☐ Spring ☑ Fall & Spring ☐

G. **COURSE DESCRIPTION:**

Students who earned their way into Subaru-U by earning a grade of B or higher GPA and have an interest in employment at a Subaru dealership upon graduation, take on-line courses from Subaru to begin with. Subaru-U training Level 1 is non-manufacturer specific and reinforces SUNY Canton Automotive training at the 100 level. Subaru-U training Level 2 is specific to Subaru yet still reinforces SUNY Canton Automotive training at the 200 level. Level 1 and 2 are the prerequisites to Level 3 face-to-face training at Subaru training centers.

H. **PRE-REQUISITES:** None ☐ Yes ☑ If yes, list below:

AUTO 101, 111, 112, 122

**CO-REQUISITES:** None ☒ Yes ☐ If yes, list below:
I. **STUDENT LEARNING OUTCOMES:** *(see key below)*

By the end of this course, the student will be able to:

<p>| Course Student Learning Outcome [SLO] | Program Student Learning Outcome [PSLO] | GER [If Applicable] | ISLO &amp; SUBSETS |
|---------------------------------------|----------------------------------------|---------------------|----------------|----------------|
| Apply scan tool and electrical knowledge to diagnose body, engine, and transmission electronic system circuits | ALO1, ALO3 | 2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO | CA IA PS Subsets |
| Apply electronics knowledge to check for module communication errors, program modules, and hybrid functions. | ALO1, ALO3 | 2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO | CA IA PS Subsets |
| Distinguish between frequency levels to determine source of noise, vibration, or harshness. | ALO1, ALO3 | 2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO | CA IA PS Subsets |
| Interpret scan tool data to reduce electrical, and electronic diagnosis time. | ALO1, ALO2 | 2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO | CA IA PS Subsets |
| Interpret oscilloscope wave forms to interpret electrical, electronic, and module communication networks. | ALO1, ALO3 | 2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO | CA IA PS Subsets |</p>
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J. APPLIED LEARNING COMPONENT:  
Yes ☒  No ☐

If YES, select one or more of the following categories:

- Classroom/Lab
- Internship
- Clinical Placement
- Practicum
- Service Learning
- Community Service
- Civic Engagement
- Creative Works/Senior Project
- Research
- Entrepreneurship
  (program, class, project)

K. TEXTS:
none

L. REFERENCES:
Subaru-U.com

M. EQUIPMENT: None ☐  Needed: technology enhanced classroom, or laptops in the automotive lab

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:
- Exams given at the end of each unit by Subaru
- Participation

P. DETAILED COURSE OUTLINE:
I. Level 1 Training
A. Introduction to SSM3 (Subaru Service Monitor 3)
B. Subaru Technical Information System
C. Repair Order Write-Up
D. Basic Electrical I & II
E. Bluetooth & BlueConnect
F. Remote Engine Start
G. Generic Hybrid Overview
H. NVH (Noise, Vibration, & Harshness Overview)

II. Level 2 Training
A. Automatic Transmission Learning Procedure
B. Basic Fuel Injection Part 1
C. Basic Fuel Injection Part 2
D. Diagnosis & Documentation of the DTC P0420
E. DST-I Oscilloscope
F. Electronic Throttle Control: Overview
G. Engine Service Tips
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<tr>
<td>1</td>
<td>Communication Skills&lt;br&gt;Oral [O], Written [W]</td>
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<td>2</td>
<td>Critical Thinking&lt;br&gt;Critical Analysis [CA], Inquiry &amp; Analysis [IA], Problem Solving [PS]</td>
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<td>Foundational Skills&lt;br&gt;Information Management [IM], Quantitative Lit./Reasoning [QTR]</td>
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<td>4</td>
<td>Social Responsibility&lt;br&gt;Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</td>
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<td>5</td>
<td>Industry, Professional, Discipline Specific Knowledge and Skills</td>
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*Include program objectives if applicable. Please consult with Program Coordinator*
H. EyeSight Overview
I. GR8 Battery Diagnostic Station
J. Occupant Detection System (ODS)
K. Troubleshooting using Inputs and Outputs of Control Modules

Q. LABORATORY OUTLINE: None ☒ Yes ☐