

AUTO 390J: SNAP-ON BATTERY, STARTING, CHARGING SYSTEMS DIAGNOSIS

Originator

dredman

Co-Contributor(s)**Name(s)**

Anderson, Dorothy

Justification / Rationale

The Automotive Faculty are creating this course to provide Automotive Program learners with the opportunity to earn industry-recognized certification. This certification will improve their ability to be hired in the automotive industry.

Effective Term

Spring 2023

Credit Status

Noncredit

Subject

AUTO - Automotive Technology

Course Number

390J

Full Course Title

Snap-on Battery, Starting, Charging Systems Diagnosis

Short Title

BATT, START, CHARGE DIAG

Discipline**Disciplines List**

Automotive Technology

Modality

Face-to-Face
Hybrid

Catalog Description

This course offers knowledge and skills related to an industry-standard basic, automotive battery, starting, and charging system diagnosis. The learner will be shown interpretation and diagnosis of common battery, starting, and charging system malfunctions. This will enhance one of the required skills for employment and advancement within the automotive service industry.

Schedule Description

This course offers knowledge and skills related to an industry standard basic, automotive battery, starting, and charging system diagnosis. Advisory: AUTO 301

Non-credit Hours

6

In-class Hours

6

Total Course Units

0

Total Semester Hours

6

Override Description

Noncredit override.

Prerequisite Course(s)

Advisory: AUTO 301

Required Text and Other Instructional Materials**Resource Type**

Web/Other

Open Educational Resource

Yes

Year

2021

Description

Snap-on study material for battery, starting, charging diagnosis exam. (No cost to the learner)

Class Size Maximum

21

Entrance Skills

Provide brief descriptions of the components.

Requisite Course Objectives

AUTO 301-Provide a brief description pertaining to major components.

Entrance Skills

Identify major automotive components.

Requisite Course Objectives

AUTO 301-Identify major automotive components.

Course Content

1. Review of battery, starting, and charging system operation and function.
2. Common battery, starting, and charging system malfunctions.
3. Service information-based diagnosis of battery, starting, and charging system malfunctions.
4. Taking the Snap-on battery, starting, and charging system diagnostic exam.

Course Objectives

	Objectives
Objective 1	List safety procedures and required personal protection equipment (PPE) when diagnosing the battery, starting, and charging systems.
Objective 2	Explain the principles and best practices of modern battery, starting, and charging system diagnosis.
Objective 3	Locate automotive battery, starting, and charging system diagnostic procedures given industry-recognized repair information.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Demonstrate proper diagnosis of common battery, starting, and charging system malfunctions.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Collaborative/Team	Each learner will work in teams to locate and identify safety procedures and personal protection equipment (PPE) within the service information related to battery, starting, and charging system diagnosis.
Lecture	Each learner will give a resenatation of automotive battery, starting, and charging system diagnosis.
Laboratory	Each learner navigate battery, starting, and charging system diagnostic procedures from the service information.
Discussion	Each learner will participate in classroom discussions.

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Written homework	Readings and home work from the instructor-provided materials.	In and Out of Class
Student participation/contribution	The lecture will be a two-way interactive discussion requiring input from each learner.	In and Out of Class
Tests/Quizzes/Examinations	Learners must successfully complete required assessment material.	In and Out of Class

Assignments
Other In-class Assignments

1. List 5 safety procedures including required PPE when diagnosing a battery, starting, and charging system malfunction.
2. Explanation of battery, starting, and charging system diagnosis procedures and best practices.
3. Directions on how to diagnose a battery, starting, and charging system malfunction.
4. How to interpret battery, starting, and charging system tester read-outs.
5. Participation in discussion related to lecture.
6. Development of a study-plan for the Snap-on battery, starting, and charging system diagnosis exam.
7. Quiz and review of battery, starting, and charging system diagnostics and best practices.

Other Out-of-class Assignments

1. Execution of individual study-plans in preparation for the Snap-on battery, starting, and charging system diagnostic exam.
2. Taking the Snap-on battery, starting, and charging system diagnostic exam.

Grade Methods

Pass/No Pass Only

Distance Education Checklist

Include the percentage of online and on-campus instruction you anticipate.

Online %

50

On-campus %

50

Lab Courses

How will the lab component of your course be differentiated from the lecture component of the course?

The lab activities will be locating data from the service information and operating the battery, starting, and charging system diagnosis to answer specific questions.

From the COR list, what activities are specified as lab, and how will those be monitored by the instructor?

Battery, starting, and charging system diagnosis performed in a lab setting which will be monitored by instructor observation.

How will you assess the online delivery of lab activities?

Laboratory activities will not be delivered in the online setting, only in person.

Instructional Materials and Resources**If you use any other technologies in addition to the college LMS, what other technologies will you use and how are you ensuring student data security?**

The learners are responsible for their own login and password information to other sites.

If used, explain how specific materials and resources outside the LMS will be used to enhance student learning.

Each learner will go to the assigned site and follow their personalized study-plan.

Effective Student/Faculty Contact**Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?****Within Course Management System:**

Discussion forums with substantive instructor participation
Online quizzes and examinations
Regular virtual office hours
Timely feedback and return of student work as specified in the syllabus
Weekly announcements

External to Course Management System:

Direct e-mail
Posted audio/video (including YouTube, 3cm mediasolutions, etc.)
Synchronous audio/video

For hybrid courses:

Orientation, study, and/or review sessions
Scheduled Face-to-Face group or individual meetings

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.

Regular effective contact will be practiced through online lecture, discussion board postings, email communications, regular announcements, prompt grading and feedback of assignments, and virtual office hours. This contact between the facilitator and learner on a regular basis will enhance learner confidence and understanding and promote critical thinking and analyzation of subject matter.

If interacting with students outside the LMS, explain how additional interactions with students outside the LMS will enhance student learning.

Group discussions, e-mail correspondence, voicemail.

Other Information**Provide any other relevant information that will help the Curriculum Committee assess the viability of offering this course in an online or hybrid modality.**

With the uncertainty of the teaching environment, enabling the lecture portion of this course to be delivered in an online setting, while keeping the hands-on portion face-to-face, will ensure learners can access needed training to ensure knowledge and experience is achieved to gain employment in the automotive field.

MIS Course Data**CIP Code**

47.0604 - Automobile/Automotive Mechanics Technology/Technician.

TOP Code

094800 - Automotive Technology

SAM Code

C - Clearly Occupational

Basic Skills Status

Not Basic Skills

Prior College Level

Not applicable

Cooperative Work Experience

Not a Coop Course

Course Classification Status

Other Non-credit Enhanced Funding

Approved Special Class

Not special class

Noncredit Category

Short-Term Vocational

Funding Agency Category

Not Applicable

Program Status

Program Applicable

Transfer Status

Not transferable

General Education Status

Y = Not applicable

Support Course Status

N = Course is not a support course

Allow Audit

No

Repeatability

Yes

Repeatability Limit

NC

Repeat Type

Noncredit

Justification

Noncredit courses are repeatable until students achieve the outcomes and objectives of the course.

Materials Fee

No

Additional Fees?

No

Approvals**Curriculum Committee Approval Date**

03/17/2022

Academic Senate Approval Date

03/24/2022

Board of Trustees Approval Date

04/24/2022

Chancellor's Office Approval Date

05/07/2022

Course Control Number

CCC000631457