

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Automotive Technology: Auto Mechanics

Submitter

First Name: Jay
Last Name: Leuck
Phone: 3052
Email: jayl

Course Prefix and Number: AM - 244

Credits: 7

Contact hours

Lecture (# of hours):
Lec/lab (# of hours): 154
Lab (# of hours):
Total course hours: 154

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Advanced Electrical Systems

Course Description:

This course includes electronic and computer fundamentals, general electrical system diagnosis, instrument cluster and driver information systems diagnosis and repair, body electrical systems diagnosis and repair.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Automotive Technology AAS, Under Hood Technician certificate

Are there prerequisites to this course?

Yes

Pre-reqs: AM-129 with a C or better

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Winter**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. demonstrate general electrical system diagnosis;
2. demonstrate instrument cluster and driver information systems diagnosis and repair;
3. demonstrate body electrical systems diagnosis and repair.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. ATech 1820A Automotive electronics
2. Electronic fundamentals
3. Capacitance and capacitors
4. Computer fundamentals
5. Can and network communications
6. Driver information and navigation systems
7. Horn, wiper, and blower motor circuits
8. Accessory circuits
9. Airbag and pre-tensioner circuits
10. Audio system operation and diagnosis

Does the content of this class relate to job skills in any of the following areas:

- | | |
|--------------------------------------|-----------|
| 1. Increased energy efficiency | No |
| 2. Produce renewable energy | No |
| 3. Prevent environmental degradation | No |
| 4. Clean up natural environment | No |
| 5. Supports green services | No |

Percent of course: 0%

First term to be offered:

Specify term: Winter 2018
