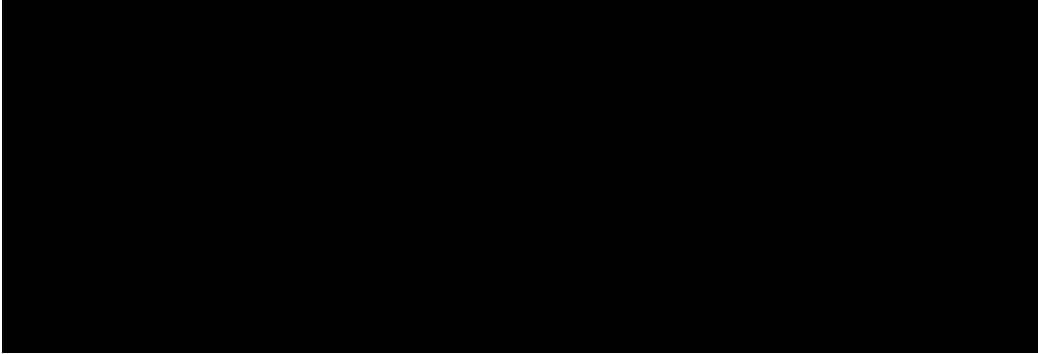


Electrical & Electronics I

TEAU1160 251

Instructor Information



Course Student Learning Outcomes

- Demonstrate proficiency in ASE-EF Electrical/Electronic Systems Maintenance and Light Repair (MLR) Tasks in accordance with industry standards.
- General.
- Battery Service.
- Starting System.
- Charging System.
- Lighting, Instrument Cluster, Driver Information, and Body Electrical Systems.

Communication Plan

Example language:

- I will respond to email within [insert your timeline]. I will offer feedback on major assignments within [insert your timeline]. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

- In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

Late Work

Work is not accepted late. In the event you cannot attend on due date turn the assignment in early or arrange with instructor prior to due date.

Extra Credit

Additional extra credit may be earned by completing learning modules from associated manufacturer of choice as made accessible through course.

Course Prerequisites

TEAU 1010

Course Description

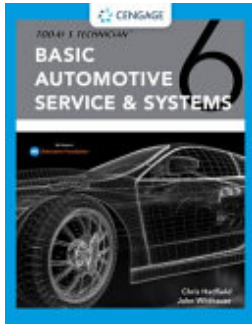
This ASE-EF accredited course is an introduction to automotive electrical and electronic systems. Students demonstrate their proficiency in the reading of wiring diagrams, use of electrical measuring devices, and service of modern automotive electrical systems. This lecture/lab course is part 1 of a 3-part course. It is recommended that students take TEAU 1050, TEAU 1100, TEAU 1150, TEAU 1140, TEAU 1240, TEAU 1250, and TEAU 1270 in the same semester as this course.

Prerequisite(s): TEAU 1010 (with concurrency)

This ASE-EF accredited course is an introduction to automotive electrical and electronic systems. Students demonstrate their proficiency in the reading of wiring diagrams, use of

electrical measuring devices, and service of modern automotive electrical systems.
This lecture/lab course is part 1 of a 3-part course

Required Text or Materials



Title: Today's Technician

Subtitle: e-book: Basic Automotive Service and Systems

ISBN: One-year electronic subscription to MindTap Unlimited

Authors: Chris Hadfield, John Witthauer

Publisher: Canvas - MindTap

Publication Date: 2020-01-01

Edition: 6th

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Attendance and Participation

Attendance of all lecture and lab classes is required to achieve learning outcomes and ASE certification years-of-service equivalency requirement. Your participation in the classroom and lab is expected and encouraged. Course is only 12 days long. Missing class will hinder ability to achieve desired outcomes.

Overall course scores may be reduced due to being absent or tardy as follows:

1 absence a student receives no higher than a 91% cumulative score

2 absences a student receives no higher than an 83% cumulative score

3 absences constitutes course failure

3 late arrivals or early exits equals 1 absence.

For example: 1 absence and 3 late arrivals would equal no higher than an 83% cumulative score

Exceptions will need to be arranged with instructor.

Lab Requirements

Complete live work assignments and job sheets/worksheets as shown in the Canvas modules. **Safety glasses are required in the shop area.** Please always follow safe shop practices. Final grades will be affected due to safety violations.

Lab clean-up days noted in the Canvas calendar are mandatory and your participation in lab cleaning/maintenance is **required**. Additional clean-up days as necessary based on lab condition.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	CL-1919 Basic Electricity Prequiz	Quiz	0
	CL-1919 Basic Electricity Prequiz	Quiz	0
	CL-1919 Operating Manual	Assignment	0
	Introduce Yourself	Discussion	0
	Lab Attendance and Participation	Assignment	60
	Roll Call Attendance	Assignment	36
9/24	CL-1919 Basic Electricity Quiz	Quiz	20
9/24	CL-1919 Assignment 1 - Measuring Resistance	Assignment	23
9/25	Acknowledgement of Syllabus	Quiz	1

Due Date	Assignment Name	Assignment Type	Points
9/25	CL-1919 Assignment 2 - Measuring DC Voltage	Assignment	13
9/26	CL-1919 Basic Meter Understanding Quiz	Quiz	20
9/26	CL-1919 Assignment 3 - Measuring DC Current	Assignment	5
9/30	CL-1919 Ohms Law Quiz - 1	Quiz	12
9/30	CL-1919 Assignment 4 - Series Circuit-2	Assignment	2
9/30	CL-1919 Assignment 5 - Series Circuit with one Resistance -2	Assignment	7
10/1	CL-1919 Assignment 6 - Series Circuit with two Resistances	Assignment	15
10/1	Star-U Basic Electrical 1	Assignment	20
10/2	Job Sheet 18 Checking the Battery and Generator	Assignment	10
10/3	Chapter 5 Quiz	Quiz	10
10/3	Job Sheet 19 Testing Electrical Circuits Using a Test Light and DMM	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
10/4	Electrical Diagram Reading - A/C Heater	Assignment	20
10/4	Job Sheet 20 Inspect, Service, and Test the Starter and Starter Circuits	Assignment	10
10/4	Job Sheet 21 Inspect, Service, and Test the Alternator and Alternator Circuits	Assignment	10
10/6	Star-U Basic Electrical 2	Assignment	20
10/7	Job Sheet 22 Using Wiring Diagrams to Locate, Test, and Service Circuit Protection Devices, Relays, Switches, and Conductors	Assignment	10
10/7	Job Sheet 23 Inspect, Service, and Test the Battery	Assignment	10
10/8	Job Sheet 24 Accessories Performance Test	Assignment	10
10/9	Chapter 6 Quiz	Quiz	10
10/9	Job Sheet 25 Diagnosing an Oil Pressure Warning Light	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
10/9	Job Sheet 26 Soldering Copper Wires and Connector Repair	Assignment	10
10/9	Live Work	Assignment	10

Keys for Success (how to succeed in the course)

Professionalism

Conducting yourself in a professional manner will put money in your pocket (your professional career).

Team concepts that are commonplace within the industry at dealerships and aftermarket shops are incorporated in this course. Students are expected to check their Canvas site daily, contact or message instructor in the event of an illness or absence (before missing class), track their individual course progress (Canvas), and prepare reflections on course content or assigned selected topics.

Brief Description of Assignments/Exams

Exams

Note: Quizzes or Exams cannot be made up so expect to attend.

A chapter quiz for each chapter will be given and reviewed throughout this course. These tests are closed book unless specified and can include multiple choice and true/false type questions. See the Canvas modules for dates, points, and grading.

Major Assignments

The course progression is outlined in modules in Canvas with the assignment description, point values, due dates, and other course dates or notes. All assignments and due dates are also listed chronologically in the Canvas calendar. Assignments can be submitted in person (on paper) or submitted electronically in canvas using a file type compatible with Canvas.

Preparation

Read the classroom manual and shop manual chapters indicated in each section. Pay attention during lecture and review additional information provided. Questions included on tests or quizzes are often derived from the additional presented materials.

Grading Scale

Grades will be assigned for performance in accordance with the policy outlined in the college catalog. The final grade is based the total number of points received in several areas. The final letter grade will be computed as percentage of total possible points listed in Canvas grading section.

Grade Calculation

(A 100% - 94%) (A- 94% - 90%) (B+ 89% - 87%) (B 86% - 84%) (B- 83% - 80%) (C+ 79% - 77%) (C 76% - 74%) (C - 73% - 70%) (D + 69% - 67%) (D 66% - 64%) (D - 63% - 61%) (E - Below 61%)

A Grade of "C" or higher is required to continue in the Automotive Program.

Grading Rubric

Attendance and Participation 96 points (22%)

Assignments / Task Sheets / Work Sheets 165 points (37%)

Exams and Quizzes 46 points (10%)

Safety Certifications / Assignments 130 points (29%)

Shop / Lab / Live work 10 points (2%)

Final grades are calculated on percentage of 414 (100%) total points possible

Transfer/Certification/Licensure/Employment Information

S/P2 (Fusion) safety certifications will be achieved in this course and are required to proceed through program.

Additional certifications will be available to students in preparation for automotive career.

ASE certifications are not provided by SLTC/SLCC. Course content is designed to prepare students with needed knowledge to pass ASE certification exams. SLTC/SLCC holds an accreditation by ASE-EF at a Master level. This means that you will receive the information and training needed to pass certification exams.

Manufacturer e-learning is provided through college as arranged through each individual manufacturer. Your instructor will provide links and access during course. Many of the manufacturers will allow accomplished training courses to count towards their training requirements and may aid in employment with desired manufacturer.

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

You can access the document by clicking on the following link:

<https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>

Course Content Warnings/Trigger Warnings

Emergency Evacuation Procedures in case of an emergency.

<http://i.slcc.edu/emergency-prepare/emergency-procedures.aspx>

Department Mission Statement

It is the mission of the SLCC Automotive Department to educate students in all facets of factory approved automotive diagnosis and repair resulting in marketable job skills in an ever-changing world and to conduct operations in accordance with the S.L.C.C. mission, vision, and values.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, please visit the Institutional Syllabus under the Tutoring and Learning Support tab: <https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, please visit the Institutional Syllabus under the Advising and Counseling Support Services tab: <https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

How to Navigate to Canvas

Additional Policies

Cell Phones

If you are expecting an emergency call, put your cell phone on silent notification, and take the call outside of the classroom. Text messaging is not permitted in the classroom at any time. Please restrict the use of cell phones, tablets, and laptops in the classroom to taking notes or conducting research that is relevant to the discussion.

Headphones/Earbuds

No headphone/earbud use in classroom or lab is strongly recommended. Use of headphones/earbuds is distracting and is a safety hazard. Please do not use in classroom or in lab environment. No music in lab is the environment of choice for safety purposes. Please adhere to this policy. Abuse of policy will result in point deduction.