

## • COURSE SYLLABUS

**Course Title:** AUMT 1407-344 Automotive Electrical Systems (4:2:8)

**Semester/Year:** Spring 2023

**Instructor:** Andy Homan **Pearson**

**Link** <https://console.pearson.com/enrollment/lhgg2s>

**Office/Location:** Brownfield High School

**Phone/E-mail:** 541-519-5382 ahoman@sothplainscollege.edu

Andrew.Homan@brownfieldisd.net

**Office Hours:** Check posted hours after classes begin or by appointment.

### ***SOUTH PLAINS COLLEGE IMPROVES EACH STUDENTS LIFE***

It is the policy of South Plains College for the Spring 2022 semester that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face coverings while in SPC buildings including in classrooms, labs, hallways, and restrooms. Failure to comply with this policy may result in dismissal from the current class session. If the student refuses to leave the classroom or lab after being dismissed, the student may be referred to the Dean of Students on the Levelland campus or the Dean/Director of external centers for Student Code of Conduct Violation. Students who believe they have been exposed or may be COVID-19 positive, must contact Health Services, DeEtte Edens, BSN, RN, at (806)716-2376 or dedens@southplainscollege.edu.

## I. GENERAL COURSE INFORMATION

A. **Course Description: ( 4:2:8)** - This course is an overview of automotive electrical systems, including topics in operational theory, testing, diagnosis, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis will be on electrical schematic diagrams and service manuals. Safety is emphasized throughout the course. Elements of the course may be taught manufacturer specific.

B. **Course Goals/Objectives:** Utilizing appropriate safety procedures, the student will interpret wiring schematics and symbols, explain electrical principals, explain the theory and principles of battery, starting, charging systems, and automotive electrical accessories. The student will demonstrate diagnosis and repair of battery, starting, charging systems, and electrical accessories; and demonstrate proper use of electrical test equipment. A complete

detailed list of objectives is printed in table form and listed before the content outline of this syllabus.

C. **Course Competencies:** A = 100-90 B = 89-80 C = 79-70 F = 69 or below

A grade of a C or higher is required in order to successfully complete this course.

D. **Academic Integrity.** It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his own, any work which he has not honestly performed, is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension. For further information concerning Cheating and Plagiarism, read the section on Academic Integrity in the SPC General Catalog. **If you have a question as to whether you may work with other students on any assignment, ASK YOUR INSTRUCTOR. On some assignments working with others is encouraged.**

E. **SCANS and Foundation Skills.** Specific SCANS competencies and foundation skills applicable to this course are listed adjacent to each objective in the course objective table. They include: Foundation Skills (F): 1,2,3,4,5,6,8,9,10,11,12. Competencies (C): 5,6,7,15,16,18,19,20. A complete list of SCANS competencies and foundation skills is attached at the end of this syllabus.

F. **Verification of Workplace Competencies-Technical Education Division.** The learning outcomes of this course will prepare the student to meet the competencies measured in a comprehensive elective course experience (Course #=s AUMT 1366 , or AUMT 2366). In addition the student will also be prepared to take the ASE Student Certification test for Electrical Systems.

## II SPECIFIC COURSE/INSTRUCTOR REQUIREMENTS

### A. Textbook & Other Required Materials:

1. Revel Pearson Digital or Printed Textbook
2. 8 & 1/2" x 11" Notebook for note taking and assignments
3. Safety Glasses
4. A calculator with a reciprocal key

B. **Class Attendance Policy.** Students are expected to attend all classes in order to be successful in a course. When absences become excessive, and you have a failing grade average at the time of the excessive absence, you may be administratively dropped from the course and any concurrent courses, **without notice.** Students may be administratively withdrawn from the course when absences become excessive **without notice. Attendance is 20 % of your grade . Leaving class without notifying your instructor is considered an absence, regardless of the time you left.**

When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first-class meeting.

Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

B. **Assignment Policy:** All assignments are due at the beginning of class on the due date unless otherwise stated by your instructor. **Part of these assignments can be on-line through the on-line curriculum, you should log on to the on-line curriculum at the beginning of the semester in order to complete them on time. There may be no makeup assignments and no late assignments will be accepted.** The dates printed in this syllabus can change. Every effort will be made to inform students of those changes, but the students are ultimately responsible for all assignments regardless of any changed dates. Please check the dates with your instructor throughout the course.

D. **Grading Policy/ Procedure and/or Methods of Evaluation:** All exams are mandatory for effective student evaluation. Exams will cover theory and practical skills pertaining to all aspects of material presented. Adequate study time should be set aside for exam reviews. **There may be no makeup exams. All fees owed to South Plains College, including projects, are required to be paid in full before you take your final exam.** The NA3SA

certification test mentioned above can be used in place of your final exam. Electrical NA3SA is usually taken in the spring semester.

You will be evaluated during this course by the following method:

Unit exams, written assignments, pop quizzes, and attendance = 25%

Unit skills tests and/or Lab sheets = 50% (approximately 4)

Final Exam: = 25%

A unit skills test is a measure of how well you follow instructions, your safety in the shop, your use of tools, your cleanliness in the work area and your attention to detail while you perform diagnostics or repairs within a required time period. **If you're late for a skills test the following will happen; 0 to 5 minutes late = -10pts; more than 5 min. but less than 10 min. late = -20pts; more than 10 min. but less than 15 min. late = -30pts. If you are more than 15 minutes late you will have earned a "0" for the test.**

A task sheet is used to plan and track students while they perform required skills in the shop. This is not used to average your grade, but it is a professional evaluation of how well you work independently and your level of expertise in completing assigned tasks. Prospective employers will want to see this during an interview, so please follow the shop and repair procedures to the best of your ability.

B. **Special Requirements: A student's conduct is expected to follow the guidelines stated in the college catalogue and student handbook, any deviation will result in immediate disciplinary action.** Please turn off all cell phones, pagers, etc. during class. A detailed list of lab/shop guidelines will be distributed to you at the beginning of this class, you are expected to follow all guidelines when in the shop. **No smoking, chewing, or dipping is permitted in the building or outside the back doors of the shop and food and drinks are not allowed in any classroom, lab, or shop.** All these activities will be limited to break time in designated areas only. Breaks will be limited to 20 minutes. Do not park on the back lot unless preauthorized by your instructor, unauthorized vehicles can be towed at the owner's expense.

**Dress Code:** The Automotive Program requires you to dress appropriately. Flip flops or opened toed shoes are not allowed in the shop, proper foot attire should be worn to protect your feet, leather work boots are recommended. Jeans/ pants will be worn so that neither one falls to your thighs or knees, belts must hold them at your waist line. Safety glasses will be worn at all times in the shop. If a student fails to

comply with the above dress code, he or she, will be sent home and given an absence for that day.

## **LUBBOCK CAMPUS GUIDELINES**

### **CHILDREN ON CAMPUS**

Many of the students attending classes at South Plains College - Lubbock Camps are also parents who value the opportunity to participate in higher education. Sometimes students are faced with the decision of whether to remain at home with their children, bring children with them to class, or be absent from class. The following guidelines address concerns for the safety of children on campus and provide for an environment conducive to learning.

### **CHILDREN IN THE CLASSROOM**

**Students are not allowed to bring children to class** and will be asked to leave in the interest of providing an environment conducive for all students enrolled in the class. Students are responsible for adherence to the attendance requirements set forth by the instructor in the course syllabus.

### **UNATTENDED CHILDREN ON CAMPUS**

**Children may not be left unattended.** In order to provide for the safety of children on campus, parents or other guardians are responsible for supervising children while utilizing services or conducting business on campus.

### **DISRUPTIVE CHILDREN**

**Disruptive children will not be allowed to interfere with college business.** Parents or other guardians are responsible for supervising and controlling the behavior of children they have brought on campus.

### **Diversity Statement**

In this class, the instructor will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should be.

## **ADA Statement**

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) & Lubbock Center 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

### **GENERAL SAFETY ON CAMPUS**

South Plains College recognizes the importance of safety on campus. The protection of persons and property is a responsibility which we all share. Personal safety begins with the individual. The following guidelines are intended to assist you in protecting yourself and to encourage practices that contribute to a safe environment for our campus community.

- Never leave your personal property unsecured or unattended.

Look around and be aware of your surroundings when you enter and exit a building.

Whenever possible, avoid walking alone, particularly after dark. Walk to your vehicle with other class members or request that the Security Guard walk you to your car.

When approaching your vehicle, keep your keys in your hand; look under your car and in the back seat and floorboard. Lock the doors as soon as you are inside your car.

**FOOD AND DRINK IN CLASSROOMS**

It is the policy of South Plains College not to permit food or drink in the classrooms or laboratories.

**In case of emergency, contact the following numbers, but DO NOT leave a voice mail message. 716-4677, - ATC 716-2923, - Reese Center (mobile 806-893-5705)**

- 

**↑ Course Schedule**



Availability:

Item is hidden from students. It will be available after Jan 16, 2023 11:59 PM.

**Automotive Electrical Systems**

**Assignment and Exam Schedule**

## Automotive Electrical Systems

### Assignment and Exam Schedule

Log on to this course on Blackboard using your SPC credentials, also log on to the on-line curriculum using your purchased CDX access from the bookstore and course ID # provided by your instructor. Become familiar with the website and look for all on line assignments. It is your responsibility to keep up with all assignments and turn in by the due dates listed below and on line.

**Unit 1:** Terminology Circuit Identification Use of test Devices January 17th – February 3rd

**Unit 1 Assignment:** In your textbook Read Chapters 50 & 52. Please spend quality time with the material related to the objectives in unit1, under content outline of this syllabus. Complete Job Sheet 4, the terminology list, and the on – line assignments for Ch's 50 & 52.

**Unit 2:** Using Schematics, Diagnosing and Testing Electrical Circuits February 6th – Feb.24th

**Unit 2 Assignment:** Read chapter 51. Complete all assigned lab projects. Complete exercises 1,2,3,6&7(handout/extra credit) and the on – line assignments for Chapter 51. **This is due Feb. 25th.**

**Units 1 & 2 Written Test: Feb. 24th ( possibly on-line)**

**Units 1 & 2 Skills Test: Feb. 24th**

**Unit 3:** Battery Service March 27st –March 10th

**Unit 3 Assignment:** Read chapters 53. **Complete the on – line assignments for chapters 53 and turn in on March 11th. Complete all assigned lab projects. Parts of chapters 67 will also be covered in this unit.**

**Unit 3 Written Test: March 10th (on-line)**

**3Unit 3 Skills Test: March 10<sup>th</sup> Spring Break March 13th – 17<sup>th</sup> Easter Holiday April 10<sup>th</sup>**

**Unit 4:** Starting System Service March 20th – April 3rd.

**Unit 4 Assignment:** Read chapter 54. **Complete the on – line assignments for chapter 54 and turn in on April 1st. Complete all assigned lab projects. Parts of chapters 67 will also be covered in this unit.**

**Unit 4 Written Test: March 31st**

**Unit 4 Skills Test: March 31st**

**Unit 5:** Charging System Service April 3th – April 21st

**Unit 5 Assignment:** Read Chapter 55. **Complete the** on – line assignments **for** chapters 55 and turn in on **April 22nd**. **Complete all assigned lab projects. Parts of chapters 67 will also be covered in this unit.**

**Unit 5 Written Test: April 21st**

**Unit 5 Skills Test: April 22nd**

**Unit 6: Chapter 40** Electrical Circuits and Ohms Law April 21st - May 5th

**Unit 6 Assignment:** Read and study any handouts given to you. Complete Task Sheet for this unit.

**Unit 6 Written Test/ Unit 6 Skills Test: This test will be given on a needed and time allowing basis only.**

**Final Exam: Your final exam is scheduled for May 5th. Please allow yourself adequate study time, this will be a comprehensive test.**