

Course Outline

Automotive Electrical Systems 8700

INSTRUCTOR:	Mr. Fleming
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PREREQUISITES:	ASS20S, EFS30S, CFS30S, DFS30S
COURSE DESCRIPTION:	<p>A student wanting to develop skills in the automotive industry must have knowledge of the basic principles of automotive electrical systems. The student will understand the principles of electricity and electronics as they relate to automotive systems. The student will be able to diagnose, service, and repair automotive electrical circuits and components.</p> <p>See Curriculum</p>
GENERAL OBJECTIVES	<p>Automotive Technology: General and Specific Learning Outcomes by Goal</p> <ol style="list-style-type: none">1: Describe and apply appropriate health and safety practices.2: Select, use, and manage tools, equipment, materials, and consumables.3: Describe, inspect, diagnose, service, and repair automotive components and systems.4: Describe and apply the transferable cross-curricular knowledge and skills.5: Demonstrate an understanding of sustainability.6: Follow ethical and legal standards.7: Demonstrate employability skills.8: Understand educational and career opportunities.9: Explore evolution, technological progression, and emerging trends
UNIT OF STUDY	<p>Students will be introduced to the following:</p> <ol style="list-style-type: none">A. Safe work practices, W.H.M.I.S, fire safety, MSDSB. Hand tools; select, use, manage electrical test and repair toolsC. Circuit typeD. Repair wiringE. Diagnose and repair/replace electrical/electronic componentsF. Service and/or replace batteriesG. Starting circuitsH. Charging circuitsI. Wiring diagramsJ. Diagnostic procedures/strategiesK. Demonstrate employability skills <p>See Curriculum</p>

EVALUATION FORMAT (Late Assignments)	<p>•Assignments are required to be handed in on time. A mark of 0 will recorded if they are not. The learner will still have the opportunity to complete the assignment if an M (missing) is entered as well.</p> <p>Occasionally additional assignments will be given that are not listed in gradebook. These assignments will be to strengthen learning of a specific outcome.</p>
ASSESSMENT GUIDELINES (formative & summative)	<p><u>Evaluation</u> <u>Summative assessment</u> Will be done as assignments are finished. If you don't hand it in on time you will receive a 0 along with an M, on your report this means (0) until completed. After a certain determined time, depending on assignment and discussion with learner, this mark will be changed permanently to 0 if not completed by agreed upon time.</p> <p>Students who are not excused from practical, tests, and quizzes must consult with the teacher immediately to arrange an alternate date to complete missed test/quiz or a zero or incomplete will be given</p> <p>Rubric marking scales will be used in practical and project assessment process.</p> <p>Daily Classroom Assignments 10%</p> <p>Daily Shop Assignments 20%</p> <p>Practical Assessments 25%</p> <p>Theory Assessments-tests & quizzes 25%</p> <p>Final exam 20%</p> <p>Total 100%</p> <p><u>Formative assessment</u></p> <p>Is done daily with feedback to students about their work. Students can ask about their work. Instant feedback What is your goal for today? You will also be asked to evaluate your own assignments. This will help in understanding what I need from you as well as looking critically at your own work. Why? Students are more motivated to learn. Students take responsibility for their own learning. Students learn valuable lifelong skills such as self-evaluation, self-assessment, and goal setting. A formative assessment will also be made on the General objectives of Automotive Technology as well as the Essential skills needed for employment.</p>
LEARNING BEHAVIOURS:	<p>Students must therefore develop good time management skills and be able to work well independently in order to be successful. Students are expected to exhibit the appropriate level of respect for the facilities, tools and</p>

	<p>equipment.</p> <table border="1"> <tr> <td data-bbox="509 281 753 401">Personal management skills</td><td data-bbox="753 281 1414 401">Uses class time effectively; works independently; completes homework and assignments on time</td></tr> <tr> <td data-bbox="509 401 753 520">Active participation in learning</td><td data-bbox="753 401 1414 520">Participates in class activities; self-assesses; sets learning goals</td></tr> <tr> <td data-bbox="509 520 753 674">Social responsibility</td><td data-bbox="753 520 1414 674">Works well with others; resolves conflicts appropriately; respects self, others and the environment; contributes in a positive way to communities</td></tr> </table>	Personal management skills	Uses class time effectively; works independently; completes homework and assignments on time	Active participation in learning	Participates in class activities; self-assesses; sets learning goals	Social responsibility	Works well with others; resolves conflicts appropriately; respects self, others and the environment; contributes in a positive way to communities
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<p>CLASS EXPECTATIONS:</p>	<p><u>1.Student Expectations</u></p> <p>a. RESPECT</p> <ol style="list-style-type: none"> 1. i. Every person (teacher and student) 2. ii. The workplace (no food, drink, keep area tidy) 3. iii. Yourself <p>b. You (and you alone) are responsible for your work so use your TIME wisely.</p> <p>c. If you are not sure, please ASK for help, TALK to me if you have a problem.</p> <p>d. Come to class ready to work.</p> <p>e. CLEAN up after yourself.</p> <p>f. Set your GOALS for each subject and class.</p> <p>Also see SVRSS beliefs</p> <p><u>2. Classroom Procedures</u></p> <p>a. Late:</p> <ol style="list-style-type: none"> 1. Being on time means being in your seat at the start of class (not running in the door). This is a direct correlation to point “a” above: Respect! <p>b. Absentees</p> <ol style="list-style-type: none"> 1. Even if approved by Parents/Guardians, you still need to complete assignments 2. You are responsible to finish assignments and work that you have missed. <p>c. Food</p> <ol style="list-style-type: none"> 1. NO food AT COMPUTERS. Please place it or eat it on the centre tables 						

	<p>2. You may have a water bottle at the computers.</p> <p>d. Leaving the class</p> <p>1. Ask permission to leave and complete the sign-out sheet. I am accountable for your whereabouts during this class and need to know who is out of the room at all times.</p> <p>e. My Desk and area in the classroom, and Shop Office</p> <p>1. Off limits to you unless I directly give you permission.</p> <p>f. Chairs</p> <p>1. Push them in when you leave.</p>
<p>Digital Citizenship:</p>	<p>Grade 9 to 12 students are banned from cell phone use during class time on campus and off campus but are permitted to responsible use of cell phones during break times and lunch.</p> <p>Northern Lights Institute of Trades and Technology (NITT) students are banned from cell phone use during class time on campus and off campus but are permitted to responsible use of cell phones during break times and lunch.</p> <p>Teachers may direct Grade 9 to 12 students or NITT students to use cell phones for educational purposes. Swan Valley School Division is committed to equitable access to all learning activities by students, so Divisional I.C.T. devices will always be the first option provided to students.</p> <p>Students with medical or diverse leaning needs may qualify for exceptions to the Administrative Procedure, however a Student Specific Plan will need to be created to accompany such an exception.</p> <p>Staff are expected to use cell phones in a fashion that supports engaging learning environments and safe schools</p> <p>A “device” box is available in the classroom and your device can be stored in it until the end of class if you wish.</p> <p>These procedures will be reviewed with the students at the start of class for the first week.</p> <p>First, a reminder will be given to the student should they forget to comply with the procedure. Upon a second occurrence the student will be asked to put their device in the lock box for the remainder of the class. A third infraction will see the student take their phone to the office for the remainder of the day. A phone call home will proceed 2nd, 3rd violation.</p> <p>Additional measures/procedures may be implemented at any time. They will be reviewed with students and posted.</p>

Safety:

The SVRSS Vocational shop use agreement and SVRSS 3-step PPE Compliance forms must be signed before Admittance to the shop.

Follow safety instructions attached to equipment in class.

Do not operate any equipment unless trained and signed off.

Students will never be sent or asked to pick up parts for the shop.