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Figure 1: Owens Logo.

Course Syllabus
SEMESTER
School of STEM

Course Name:	**John Deere Vehicle Electronics**
Course & Section Number:	**DSL-130XXX**
Meeting Day(s) & Time(s):	
Credits:	**3**
Contact Hours:	**5Hrs**
Text:	
Instructor's Name:*	
Office Hours & Location:	
OCC Phone:	
OCC Email: **	
Additional Contact Information:	

*Please call me NAME; It is my preferred name. If you have a preferred name, please let me know so I can use it.

*Please use only Owens email for course communications.

Catalog description:
John Deere Basic Electrical Electronics 2025 FA DSL-130-004

Prerequisite/Corequisites:
None Required

Course Materials:
John Deere Electronic and Electrical Systems. ISBN-0-86691-326-2 Bar # is 9780866 91326 3

*If a **print book, e-book, or access code** is required for class, you can access the Owens Community College e-Campus Bookstore by accessing the online link, called "Find Books" on the course schedule for each course section. See the example below. NONE Required online.*

OER and Owens Community College Library Resources *(Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.)*

Inclusive Access (I.A.) Materials *are included in the cost of the course to save students money through lower negotiated rates with publishers. Courses containing I.A. materials will have it noted on the online class schedule. If your course includes I.A. digital materials, you will receive an email with subject line, "Your inclusive Access Materials," and it will include any codes or digital links.*

The email will come to your Owens Community College email from the Owens e-Campus Bookstore on the first day of class, if not before. Be sure to check your spam (junk email) if you do not find it in your inbox. If the email is not in your inbox or spam folder, contact your instructor immediately. You may also see a folder at the top of your course labelled "Course Materials by E- Campus." This folder will contain any needed codes or links to needed materials.

If the I.A. materials also include a printed book or are in print form, the item will be shipped to your address of record automatically based on your enrollment in the course. Please note that some courses do not include printed materials in I.A and those materials would need to be purchased separately using the link on the course schedule. When you access the Find Books link you will see which items in a course are included in I.A.

What You Will Learn in the Course

Course Objectives:
Course will…

Student Learning Outcomes:
Students will:

Outcome	Where Assessed
Safety Procedures, Shop Procedures	Operating a Multi Meter in all Phases
Use of a Fluke Multi Meter	Chapter quizzes'- Chapter Tests
Determine Electrical Failures – Faults BB	Operating - Building Blue Boards
Observe and correct any weakness in Student	Safety Observed during Class/ Labs

Program Outcomes:
The following program outcomes are assessed in this course

Outcome	Where Assessed
Understanding the reading materials	Pertinent Chapter Tests during the Course
Efficiently operate proper tools during Lab	Hands on Assignments during Labs
Communicates proper instructions and Skills	Assessed in Lecture as well as the Lab
Able to proficiently pass Tests	Lecture room Tests & Quizzes;

Institutional General Education Competencies:
As a student at Owens Community College, you will take General Education courses as part of your degree program. While specific to the General Education courses, will be reinforced in many of your degree program major courses and may be measured in your capstone course(s) and others as identified.

Competency	Where Assessed
Communicate effectively.	Open Discussions
Act with professional responsibility.	Lab & Lecture Room
Demonstrate sensitivity to others' beliefs and values.	Lab & Lecture Room
Think analytically, critically, and creatively.	Lab & Lecture Room

Technology, Lab, and File Requirements: Access to John Deere Service Advisor or Service Center from a Personal Lap top or School Computer in the Computer Lab.

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit https://www.owens.edu/disability/, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: https://www.owens.edu/successcenters/.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at https://www.owens.edu/counseling/.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 123) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: https://www.owens.edu/connection/ or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit https://www.owens.edu/library/.

Students can find more information on campus resources, student support, student life, and security at this link.

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's Student Code of Conduct, which includes academic honesty, encompassing plagiarism. See the Board Policy for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's Anti-Discrimination and Harassment Policy and the College's Title IX Policy/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination,

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu The policy may be found on the Owens website: 3358:11-2-63 Accommodation for a Student Absence for the Observance of Religious Beliefs and Practices Policy

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or perspective students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See FERPA regulations for more information.

Use of AI:

The Use of AI may be or not be appropriate for this course. Sample language that defines the level of AI used it is permitted. If you are interested in the full article, please click on this link. The following statements are adapted from conversations with a variety of generative AI tools using policies from a variety of universities to jump-start the statements. Each of these statements can be edited and customized for your coursework and preferences. You may want to consider having policies/statements for each assignment rather than an overall policy. Some instructors simply consider AI use to fall under the Board Policy 3358:11-2-33 Cheating and Plagiarism.

AI POLICY TBD BY INSTRUCTOR

Student Responsibilities & Instructor Expectations

Instructor Expectations:

Classroom Environment: (optional)

How Grades and Determined and Major Assignments

Evaluation Measure The grade points for the areas of work are as follows.	**Student Learning Outcomes Assessed**	**Value**
Essay 1	1-6	200 points
Essay 2	1-6	200 points
Midterm	1-3; 5-6	150 points
Group Project	1-6	300 points
Final	1-6	150 points
Total		1000 points

The final course grade is to be computed using the following weights.

Evaluation Measure	**Value**	**Student Learning Outcome Assessed**
Class Participation:	5 %	1-14
Activities:	15%	1-14
Homework:	10%	
Projects (3 projects):	30%	
Project Presentations:	10%	
Quizzes (6 quizzes):	20%	
Final Project:	10%	

Grading Scale

Grade	**Points**
A	900-1000
B	800-899
C	700-799
D	600-699
F	0-599

Grading Procedure:
Grades will be calculated on the following scale.

90% and Above	A
80% to Less than 90%	B
70% to Less than 80%	C
60% to Less than 70%	D
Less Than 60%	F

Tentative Class Assignments:

		Topic & ASSIGNMENTS	Due Dates
Week 1	**1**	***,INTRODUCTIONS*** ***CHAPTER 1 SAFETY BQQK SLIDES*** **SAFETY VIDEO UT** **Quiz Ch 1 After Lecture! ho** **Meters Dispersed #### Record** **Component Msr Sheet ho** **Conversion sheet - ho** **Meter Usage Videos or Slides ut** **Assignment Ch 2- Pgs 1-14** **Assignment Ch 2 Introduction to elec.**	***Chapter 1 Quiz Due*** ***OBJECTIVE OF LESSSON METER USAGE, OHMS, VOLTS ,CONVERTING READINGS*** ***Converting scales*** ***Chapter 2 Pgs 1-14 H W*** ***Safety Test Today!*** ***Turn in Safety Test.*** ***Turn in Conversion Paper.*** ***Turn in Ohm Measurement Sheet.***
W	**Chp2**	**Lect – 2-1-14** **What is Electricity UT** **Ohm's Law Slides UT** **Lect Ch2 Fund Slides 5-16** **Series Test #1 & #2 Test Ho** **Blue Boards 1- 8 Build Practices** **Chp 2 Quiz H Work** **SERIES PARALLEL SHEET #1 Test H O** **QUIZ Ch 2 Electricity Hand Out**	***OBJECTIVE OF LESSON CALCULATE RESISTANCES LEARN THE DANGER OF CURRENT. READ THE BLUE BOARD SENARIOS WITH THE MULTI METER TURN IN SERIES TEST #1-#2*** **Ch2 # 1 TEST Due later** **Turn in Series Parallel #1** ***READ CH 2 -15- 30/41 HW catch up.***
Wk 2		**Read CH 2 -15-30/ 41 HW**	
WK 2	**Ch 2-15-41**	**Chp 2 -15-30 Review** **Elect 1 Bqqk Slides (2 -15)** **Wiring Faults** **Lect ** Ut** **Magnetism** **Magnetic fields** **Electromagnetism** **Electromagnetics** **Read 2-23 - 30 HW**	**Chp 2 Quiz Hw** **SERIES Paralell Test Sheet Due today!** Objective of lesson is to be familiar with Magnetism Operated Components..
Week 3	**Chp2**	**Lect CH 2-23-30 UT MK**	Objective of lesson is to get

		Topic & ASSIGNMENTS	Due Dates
	Cont _____>	**Self Inductions** **Mutual Inductions** **Ohms Law** **Parallel on Board** **PARALLEL #1 TEST** **Symbols 1&2 Ho HW** **SYMBOL HO WIRE COLOR CODES HO** **NUMBER COLOR CODES HO** **CH 2 -32-41 HW**	familiar with the Schematics of John Deere Color and Wiring Codes Symbols for field fix operations. Parallel Test #1 due OPTION
WK 3 **WEEK 4** **WK 4**	**CH 2** **CH 3** **CH 3 CONT--→**	**JD SITE** **LECT CH 2-32-41 INTERJECT SCHEMATICS ON SEVERAL IMPORTANT CIRCUITS WITH CHARTS.** **USE OF SERVICE ADVISOR -SERVICE CENTER.** **SCHEMATICS PICS ON THE SCREEN.** **SCHEMATICS ILLUSTRATIONS ON SCREEN** **PULL SERV ADVISOR OR SERVICE CENTER** **Tasks Today** **LECTURE ROOM CHASE** **6145M CHASE HO** **8245R CHASE HO** **3025E CHASE HO** **POSSIBLE LAB CHASE (IF TIME)** **6145M CHASE HO** **8245R CHASE HO OR @ BLU BOARDS** **3025E CHASE HO F** **BUGGED VEH.** **CH 3-1-15 HW** **LECT CH 3-1-15 UT MK** **FAILURES IN CIRCUITS SLIDES 59-63** **Know types of wires --Size** **Copper wire** **Solid/stranded** **Aluminum** **Gauges of wire** **Length Diameters** **Glass Fuses** **Protection devices** **BLUE BOARDS** **bb Alts #11a-12-14a TO ADD ON** _____ **Resistors FIXED** **"BUG BLUE BOARDS"** **Fuses - Blue Boards**	**CHP 2 Questions due** **Objective is to be able to follow schematics to connectors Relays, preventative starting relays or solenoids. Trace color coded and numbered wiring to controllers, modules and other pertinent Electrical parts.** **TURN IN 6145M SHEET** **8245R SHEET** **. 3025E SHEET** **Ch 2 questions Due Sept** Objective of lesson to Know about different types and sizes of wire and Load capability Knowing about proper fuse circuit protection on operating devices. Knowing the differences between a shorted circuit and an open Circuit and Hi resistance circuits **Blue boards** **Turn in lab Sheets Alt's ????** **BB #9 #10** **Harness Test Due.**

		Topic & ASSIGNMENTS	Due Dates
		Breakers **Poor Connections** **Circuit Breakers** **Fuseable Links** **Why Fuses Blow** **Overheat Circuit Diode Test 3.2.1-M** **Variable resistors 3.2.3 M** **Types of switches pg 3.8** **Capacitors**** **To ADD ASSORTED BLUE Boards** **Types of switches** **Shorts in A Harness** **Overheated Wiring** **Test CH 3 CHP 3 Lab Test ******* **CH 11 -`1-22 ---------- HW** **READ ABOUT PROCEDURES**	Objectives to determine voltage drops across the bulbs in the circuit. Locate issues with open- shorted or high resistances within the circuitry.Detemine a parasitic draw in the circuitry. **Mail BB Diode Test 3.2.1-3.2.3** p **Do DIODE TEST 3.2.1- 3.2.3** **CHP 3 LAB TEST HANDS ON DUE.** **Objective learn bout parasitic draws and procedures to locate. Types of switches, Harness wiring shorts overheated wiring and melted connectors.**
Wk 5 **Wk 5**	**SPLIT CLASS** **2 Days**	Chp11 Elect fail in circuits sld 59-63 ++ **LECT 11 UT ELECT- ELECTRICAL CONNECTORS** **ASPERITY** **CIRCULAR PIN TYPE** **CIRCULAR BLADE TYPE** **SEALED CONNECTORS** **STRIPPING WIRES** **CRIMPING IMPROPERLY** **CRIMPING PROPERLY** **CLOSED BARREL TERMINALS** **CRIMP WINGS ON TERMINALS** **SPLICE TERMINALS TOGETHER** **4 AT SOLDERING TABLE** **4 AT WIRE HARNESS CONNECT TABLE** **4 AT CRIMPING TABLE** **4 AT SPLICING TABLE** **CH 2- 9-27 DO QUIZ Book QUESTIONS HW**	**Objective learn the use of proper J D Tools for the repair of wiring and harnesses in the field. soldering wires- unsoldering wires, as well as removing wire connector ends from the harness and connecting ends. Competently stripping crimping-sealing repairing wires - plug ends.**
Wk 6	**BACK TO CHP 2**	**CH 2 READ - 9-27 Answer Questions** **MAIL OUT Ch 2 3.2.1 Solid State TEST** **Ch 2 LECTURE MK VID** **ON SEMICONDUCTORS CAPACITORS DIODES** **LEAKAGES (PARASITIC DRAWS)** **POWER RECTIFIERS** **TRANSISTORS** **BI-POLAR TRANSISTORS (M CHP 2 INTRO)** **MULTIPLYING RESISTORS HAND OUT "** **MAKE"**	**CHAPTER 2 QUESTIONS DUE** **CHP 2 INTRO TO ELECT TEST** **SOLID STATE TEST 3.2.1 MO** **ALL DUE OCT 1**

		Topic & ASSIGNMENTS	Due Dates
	4.1.2 prints cpl **CH2 IS FINISHED**	**CH 2 TEST INTRODUCTION TO ELECTRICTY HO** **CH 2 READ 9-27 Answer BOOK Questions** **MAIL OUT Ch 2 - 3.2.1 Solid State TEST**	
WEEK 7		**Free day to build several Blue Boards with all pertinent supplied actuators, bulbs, horns, relays, switches, lights, flasher cans, motors resistors, and more. Be CREATIVE and make a schematic of what you make of all the parts the wiring attachments .Record Ohm readings on all parts BEFORE installing. Measure ALL the Volt drops, Ma/ Amps readings on each circuit. Build a Minimum of 3-4 different ones. Record ALL data.**	**Measure students ability to perform – engage in there ability to be creative with there ability to perform all measurement tasks. Student Performances.**
		Free day to build several Blue Boards with all pertinent supplied actuators, bulbs, horns, relays, switches, lights, flasher cans, motors resistors, and more. Be CREATIVE and make a schematic of what you make of all the parts the wiring attachments .Record Ohm readings on all parts BEFORE installing. Measure ALL the Volt drops, Ma/ Amps readings on each circuit. Build a Minimum of 3-4 different ones. Record ALL data.	**Measure students ability to perform – engage in there ability to be creative with there ability to perform all measurement tasks. Student Performances.** **TEST 3.2.1 TEST DUE DATE** **TURN IN ANY TEST QUIZZES MISSING TODAY FOR THE CREDIT**. Student performances .
		Lab day full day **Bugg 1 veh for a parasitic draw using fuse charts.** **Bugg 1 veh for inop head lights resistor in line .** **Bugg 1 veh for inop horn bumm relay..** *******make sheets***** **Bugg BB with a Faulty Ground** **Bugg BB with an Open Circuit,**	Objective to measure students ability to Diagnose , locate pertinent issues causing circuitry Faults.

		Topic & ASSIGNMENTS	Due Dates
		FINAL P. Disclaimer: The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course. Please note that while unlikely, there is a possibility courses might need to change the delivery method due to external issues like public health concerns, weather issues, etc. If this happens,	the college will communicate any **PREPERATIONS FOR FINALS.** FINALS-DATE