

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	AER 2695C
COURSE TITLE:	Electrical Systems II
PREREQUISITE(S):	AER 1694C
COREQUISITE(S):	None
CREDIT HOURS:	4
CONTACT HOURS/WEEK:	6
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	4
Laboratory:	2
Other _____:	
FACULTY WORKLOAD POINTS:	5
STANDARDIZED CLASS SIZE ALLOCATION:	24
COURSE DESCRIPTION:	
<p>This course is a continuation of Electrical Systems I and is designed to teach skills in automotive electricity and electronics technology. Topics include electrical instruments and accessories, ignition systems, air bags, body control systems and service. Students enrolled in Dealer Specific programs (GM ASEP) will work with manufacturer supplied curriculum and vehicles. Both classroom lecture and laboratory will be provided.</p>	
SUGGESTED TEXT(S):	None
IMPLEMENTATION DATE:	Fall Term, 1991 (921)
REVIEW OR MODIFICATION DATE:	Fall Term, 1993 (941) Fall Term, 1998 Spring Term, 1999 Fall Term, 2002 (20031) Fall Term 2005 (20061) Fall Term, 2008 (20091)

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. Introduction	3
A. Tools	
B. Safety	
II. Electrical Systems Review	29
III. Electrical Instruments and Accessories	12
A. Instrument Panels	
B. Instrument Gauges	
C. Basic Information Gauges	
D. Indicators and Warning Devices	
E. Electrical Accessories	

PROGRAM TITLE: Automotive Service Management Technology

COURSE TITLE: Electrical Systems II

CIP NUMBER: 0615.080300

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

01.0 DEMONSTRATE AN UNDERSTANDING OF AUTOMOTIVE MECHANICS -- The student will be able to:

- 01.11 Demonstrate use of technical manuals, specification handbooks and charts.
- 01.21 Demonstrate an understanding of basic ignition and fuel systems.
- 01.31 Demonstrate an understanding of series circuits.
- 01.32 Demonstrate an understanding of parallel circuits.
- 01.33 Demonstrate an understanding of series-parallel circuits.
- 01.35 Demonstrate an understanding of advanced electronics concepts.
- 01.36 Demonstrate an understanding of electronic schematic diagrams and diagnostic techniques.
- 01.37 Demonstrate an understanding of electrical/electronic wire repair procedures.
- 01.38 Demonstrate an understanding of electronic semiconductor concepts and components.
- 01.39 Demonstrate an understanding of electronic transistor concepts and components.
- 01.40 Demonstrate an understanding of electronic microprocessor concepts, functions and components.

02.0 APPLY ELECTRICAL AND ELECTRONIC SKILLS IN DIAGNOSING /TROUBLESHOOTING MALFUNCTIONS OF ELECTRICAL/ELECTRONIC COMPONENTS -- The student will be able to:

- 02.04 Measure voltage drop, current flow and resistance in a circuit or component with a multimeter.
(ASE)

05.0 DEMONSTRATE PROFICIENCY IN SERVICING COOLING, AIR CONDITIONING AND HEATING SYSTEMS -- The student will be able to:

- 05.22 Diagnose and repair electronic air conditioning controls.

06.0 DEMONSTRATE PROFICIENCY IN ENGINE PERFORMANCE SERVICE -- The student will be able to:

- 06.01 Analyze engine performance.
- 06.04 Check the performance of engines equipped with on-board computers.
- 06.09 Inspect and test primary circuits.
- 06.14 Service electronic ignition systems.

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S): TITLES(S):

- 06.38 Diagnose and correct malfunctions in computer control systems.
- 06.39 Diagnose, test and replace on-board computer controls.
- 06.40 Diagnose, service and replace computerized sensors.

