

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: AER 1081C

COURSE TITLE: Introduction to Automotive Technology

PREREQUISITE(S): None

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:

This course explores the automotive industry today, the changes in the industry and the advanced technology used in today's vehicles. Information is provided on career opportunities, job classification, ASE Certification, safety in the automotive shop, and electronic service information systems. Basic service on tires, lubrication, wheel balancing, and vehicle inspections will be covered. Students enrolled in Dealer Specific programs (GM ASEP and Ford MLR) will work with manufacturer supplied curriculum and vehicles.

SUGGESTED TEXT(S): Basic Automotive Service, 3rd Ed. Delmar 2005

IMPLEMENTATION DATE: Spring Term 1999

REVIEW OR MODIFICATION DATE: Fall Term, 2002 (20031)
Fall Term, 2008 (20091)

COURSE TOPIC	<u>CONTACT HOURS PER TOPIC</u>
I. The Automotive Industry	10
A. Introduction	
1. Tools	
2. Safety	
B. Warranties	
C. Job Classification	
D. Related Career Opportunities	
E. Working as an Automotive Technician	
E. ASE Certification	
II. Practicing Safety in the Shop	20
A. Personal Safety	
B. Tools and Equipment Safety	
C. Work Area Safety	
D. Manufacturer's Warning and Government Regulation	
III. Basic Service Skills	30
A. Lube Technician Skills	
B. Under Vehicle inspection	
C. Used vehicle inspection	
D. Brakes, Tires, and Leaks Inspection	
VI. Suspension Service	30
A. Tire Changing and Flat Repairs	
B. Wheel Balancing and Inspections	

PROGRAM TITLE: Automotive Service Management Technology

COURSE TITLE: Introduction to Automotive Technology

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:

- 01.01 Apply shop safety rules and procedures.
- 01.02 Use and maintain hand tools such as screwdrivers, special application pliers, hammers, chisels, punches, special application wrenches and sockets, files, hacksaws, bench vises and "C" clamps.
- 01.04 Use and install fasteners such as screws and bolts, key screw extractors, helicoil inserts and thread cutting taps and dies.
- 01.05 Use and maintain power tools such as drills, bench grinders, drill press, hydraulic presses, impact wrenches, air chisels, parts washers, hydraulic jacks and vehicle hoists.
- 01.06 Apply basic math skills.
- 01.07 Use and apply metric and English measurement skills.
- 01.08 Demonstrate an understanding of lubrication requirements.
- 01.09 Inspect, remove, and replace and adjust all belts.
- 01.10 Perform auto safety inspection.
- 01.11 Demonstrate use of technical manuals, specification handbooks and charts.
- 01.30 Describe electrical terms, magnetism, electrical current flow and Ohm's law.
- 01.53 Check and adjust specified fluid levels.

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

- 02.08 Service and test batteries.
- 02.09 Remove and replace light bulbs.

03.0 DEMONSTRATE PROFICIENCY IN SERVICING STEERING, SUSPENSION AND WHEEL SYSTEMS--The student will be able to:

- 03.10 Inspect, repair, and replace tires and wheels.
- 03.11 Rotate wheels and tires. (ASE)
- 03.12 Balance wheels. (ASE)

04.0 DEMONSTRATE PROFICIENCY IN SERVICING AUTOMOTIVE BRAKE SYSTEMS--The student will be able to:

- 04.09 Replace drum brake shoes and disc pads. (ASE)

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

09.0 DEMONSTRATE PROFICIENCY IN ENGINE REPAIR SERVICE--The student will be able to:

09.32 Change oil and filter. (ASE)

11.0 DEMONSTRATE APPROPRIATE COMMUNICATION SKILLS--The student will be able to:

11.03 Read and follow written and oral instructions.

14.0 DEMONSTRATE EMPLOYABILITY SKILLS--The student will be able to:

14.01 Conduct a job search.

14.02 Secure information about a job.

14.03 Identify documents which may be required when applying for job interview.

14.04 Complete a job application form correctly.

14.05 Demonstrate competence in job interview techniques.

14.06 Identify or demonstrate appropriate responses to criticism from employer, supervisor or other employees.

14.07 Identify and adopt acceptable work habits.

14.08 Demonstrate knowledge of how to make appropriate job changes.

14.09 Demonstrate acceptable employee health habits.

14.10 Demonstrate a knowledge of the "Florida Right-To-Know Law" as recorded in Florida Statutes Chapter 442.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1	
COURSE PREFIX AND NUMBER: <u>AER 1081C</u>	SEMESTER CREDIT HOURS: <u>4</u>
COURSE TITLE: Introduction to Automotive Technology	

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

AA Elective AS Required Professional Course College Prep
 AS Professional Elective AAS Required Professional Course Technical Certificate
 Other _____ PSAV Apprenticeship
 General Education: (For General Education courses, you must also complete Section 3 and Section 7)

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

Communications Social & Behavioral Sciences Mathematics
 Natural Sciences Humanities

Section 4

INTELLECTUAL COMPETENCIES:

Reading Speaking Critical Analysis Quantitative Skills Scientific Method of Inquiry
 Writing Listening Information Literacy Ethical Judgment Working Collaboratively

<i>Section 5</i>		
LEARNING OUTCOMES		METHOD OF ASSESSMENT
•	01.0 <u>DEMONSTRATE AN UNDERSTANDING OF AUTOMOTIVE MECHANICS--</u>	Written test, NATEF Authentic Task Observation (NATO)
•	02.08 Service and test batteries. 02.09 Remove and replace light bulbs.	Written test, NATO
•	03.0 <u>DEMONSTRATE PROFICIENCY IN SERVICING STEERING, SUSPENSION AND WHEEL SYSTEMS</u> See attached framework	Written test, NATO
•	04.09 Replace drum brake shoes and disc pads.	Written test, NATO
•	09.32 Change oil and filter. (ASE)	Written test, NATO
•	11.0 <u>DEMONSTRATE APPROPRIATE COMMUNICATION SKILLS</u>	Written test, NATO
•	14.0 <u>DEMONSTRATE EMPLOYABILITY SKILLS</u>	Written test, NATO

Section 6

Name of Person Completing This Form: Jeff Rehkopf

Date: 9/21/2007