

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: AER 1992

COURSE TITLE: Automotive Internship II

PREREQUISITE(S): None

COREQUISITE(S): None

CREDIT HOURS: 2

CONTACT HOURS/WEEK: up to 20 hours/week

CONTACT HOUR BREAKDOWN:

Lecture/Discussion:

Laboratory:

Other _____:

FACULTY WORKLOAD POINTS: Calculated on the # of students in the internship

STANDARDIZED CLASS SIZE ALLOCATION: open

CATALOG COURSE DESCRIPTION:

This course is a companion to Steering and Suspension and Brake Systems. In order to meet the State of Florida, N.A.T.E.F., and General Motors ASEP standards, interns must complete 100 hours on-the-job learning experience in Steering and Suspension Repairs and 100 hours on-the-job learning experience in Brake Systems related repair. While working under the mentorship of an experienced technician, students must document the required hours and master the student performance standards.

SUGGESTED TEXT(S): N/A

IMPLEMENTATION DATE: Spring Term, 1999

REVIEW OR MODIFICATION DATE: Fall Term, 2002 (20031)
Fall Term, 2005 (20061)
Fall Term, 2007 (20081)
Fall Term, 2008 (20091)

PROGRAM TITLE: Automotive Service Management Technology

COURSE TITLE: Automotive Internship II

CIP NUMBER: 0615.080300

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

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

DEMONSTRATE KNOWLEDGE IN THE OPERATION AND SERVICING OF AUTOMOTIVE--CYLINDER HEAD AND VALVE TRAIN DIAGNOSIS AND REPAIR --The student will understand the theory and application of the following standards:

- 09.13 Remove cylinder head(s); inspect cylinder head(s) for cracks; check gasket surface areas for warpage and leakage; check passage condition. P-2
- 09.15 Inspect and test valve springs for squareness, pressure, free height comparison; replace as needed. P-2
- 09.16 Inspect valve spring retainers, locks, and valve grooves. P-2
- 09.19 Inspect valves; resurface or replace. P-3
- 09.20 Inspect valve seats; resurface or replace. P-3
- 09.21 Check valve face-to-seat contact and valve seat concentricity (runout); service seats and valves as needed. P-3
- 09.21 Check valve spring assembled height and valve stem height; service valve and spring assemblies as needed. P-3
- 09.25 Adjust valves (mechanical or hydraulic lifters). P-1
- 09.27 Inspect camshaft for runout; measure journals and lobes for wear. P-3
- 09.28 Inspect and measure camshaft bearings for wear, damage, out-of-round, and alignment; determine needed repairs. P-3
- 09.29 Verify camshaft(s) timing according to manufacturer's specifications and procedure. P-2

DEMONSTRATE PROFICIENCY IN THE OPERATION AND SERVICING OF AUTOMOTIVE--CYLINDER HEAD AND VALVE TRAIN DIAGNOSIS AND REPAIR--The student will be able to perform the following practical skills standards:

- 09.13 Remove cylinder head(s); inspect cylinder head(s) for cracks; check gasket surface areas for warpage and leakage; check passage condition. P-2
- 09.14 Install cylinder heads and gaskets; tighten according to Manufacturer's specifications and procedures. P-2
- 09.15 Inspect and test valve springs for squareness, pressure, free height comparison; replace as needed. P-2
- 09.16 Inspect valve spring retainers, locks, and valve grooves. P-2
- 09.17 Replace valve stem seals. P-2
- 09.18 Inspect valve guides for wear; check valve guide height and stem-to-guide clearance; recondition or replace as needed. P-2
- 09.19 Inspect valves; resurface or replace. P-3

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S):	TITLES(S):
09.20	Inspect valve seats; resurface or replace. P-3
09.21	Check valve face-to-seat contact and valve seat concentricity (runout); service seats and valves as needed. P-3
09.22	Check valve spring assembled height and valve stem height; service valve and spring assemblies as needed. P-3
09.23	Inspect pushrods, rocker arms, rocker arm pivots and shafts for wear, bending, cracks, looseness, and blocked oil passages (orifices); repair or replace. P-2
09.24	Inspect hydraulic or mechanical lifters; replace as needed. P-2
09.25	Adjust valves (mechanical or hydraulic lifters). P-1
09.26	Inspect and replace camshaft drives (including gear wear and backlash, sprocket and chain wear, overhead cam drive sprockets, drive belts, belt tension, and tensioners). P-2
09.26	Inspect camshaft for runout; measure journals and lobes for wear. P-3
09.28	Inspect and measure camshaft bearings for wear, damage, out-of-round, and alignment; determine needed repairs. P-3

DURING THE INTERNSHIP PORTION OF THIS PROGRAM THE STUDENT WILL DEMONSTRATE PROFICIENCY IN THE OPERATION AND SERVICING OF AUTOMOTIVE -- CYLINDER HEAD AND VALVE TRAIN DIAGNOSIS AND REPAIR -- The student will be evaluated on the following practical skills standards:

09.13	Remove cylinder head(s); inspect cylinder head(s) for cracks; check gasket surface areas for warpage and leakage; check passage condition. P-2
09.14	Install cylinder heads and gaskets; tighten according to Manufacturer's specifications and procedures. P-2
09.15	Inspect and test valve springs for squareness, pressure, free height comparison; replace as needed. P-2
09.16	Inspect valve spring retainers, locks, and valve grooves. P-2
09.17	Replace valve stem seals. P-2
09.18	Inspect valve guides for wear; check valve guide height and stem-to-guide clearance; recondition or replace as needed. P-2
09.19	Inspect valves; resurface or replace. P-3
09.20	Inspect valve seats; resurface or replace. P-3
09.21	Check valve face-to-seat contact and valve seat concentricity (runout); service seats and valves as needed. P-3
09.22	Check valve spring assembled height and valve stem height; service valve and spring assemblies as needed. P-3
09.23	Inspect pushrods, rocker arms, rocker arm pivots and shafts for wear, bending, cracks, looseness, and blocked oil passages (orifices); repair or replace. P-2
09.24	Inspect hydraulic or mechanical lifters; replace as needed. P-2
09.25	Adjust valves (mechanical or hydraulic lifters). P-1
09.26	Inspect and replace camshaft drives (including gear wear and backlash, sprocket and chain wear, overhead cam drive sprockets, drive belts, belt tension, and tensioners). P-2
09.27	Inspect camshaft for runout; measure journals and lobes for wear. P-3
09.28	Inspect and measure camshaft bearings for wear, damage, out-of-round, and alignment; determine needed repairs. P-3

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S): TITLES(S):

Means of Evaluation: The EMPLOYEE INTERNSHIP EVALUATION REPORT and a weekly STUDENT WORK REPORT will be utilized.