**COURSE SYLLABUS**

**DATE: Fall Semester 2012**

**CURRICULA IN WHICH COURSE IS TAUGHT: Automotive Analysis and Repair**

**COURSE NUMBER/TITLE: AUT 295 Topics in Automotive**

**DIVISION: Business & Engineering Technologies**

**TEXTBOOK:**

**CREDIT HOURS: 2 HOURS/WEEK LECTURE: 2 HOURS/WEEK LAB: 0 LEC/LAB COMB: 2**

**I.** **Catalog Description:**

A study of all phases of the automotive repair industry. Emphasizes the changeover from mechanical controls to electronic controls and the computerization of the automobile. This course also seeks to prepare the student for automotive certification testing.

**II. Relationship of the course to curricula objectives in which it is taught:**

**Students will**:

I. Demonstrate competencies and skills in automotive engine performance.

II. Demonstrate competencies and skills in automotive electrical systems.

III. Demonstrate competencies and skills in automotive brake systems.

IV. Demonstrate competencies and skills in suspension and steering.

V. Demonstrate technical competencies and skills in automatic transmissions and transaxles.

VI. Demonstrate punctuality and reliability acceptable to the automotive repair industry.

VII. Use safety equipment and procedures required for the operations being performed.

VIII. Read and interpret technical information required for projects and assignments.

**III. Required background:**

The student must have completed the courses in the Automotive Analysis and Repair Curriculum that precede it or have the instructor’s permission.

1. **Course Content:**

Computer Literacy Skills

Resume Creation

Engine Repair

Engine Performance

Braking Systems

Heating & Air Conditioning Systems

Electrical Systems

Alignment & Suspension Systems

Automatic Transmissions/Transaxles

Manual Transmissions & Final Drive Systems

**V. Learner Outcomes:**

**Evaluated by multiple choice, fill-in-the-blank or true/false tests**:

1. Evaluate engine performance problems.

2. Distinguish between mechanical and electronic engine failures.

3. Evaluate brake system problems.

4. Evaluate heating & air conditioning problems.

5. Evaluate automotive electrical failures.

6. Evaluate alignment & suspension problems.

7. Evaluate transmission problems.

8. Evaluate final drive systems problems.

**VI: Program Outcomes:**

1. Students will demonstrate the ability to use an automotive scan tool and a multi-meter to retrieve information and diagnose a modern automobile.

2. Students will work in teams to complete the disassembly and reassembly of automotive assemblies in selected course areas.

3. Students will demonstrate the use of precision measurement tools such an outside micrometer and a torque wrench.

4. Students will complete all assigned lab worksheets on modern automobile systems.

5. Students will successfully complete a Shop Safety Course.

**VII. The Following General Education Objectives Will Be Addressed in This Course:**

Communication

Learning Skills

Critical Thinking

Interpersonal Skills and Human Relations

Understanding Science and Technology

**COURSE OUTLINE**

**Course Section Number/Title**: AUT 295-01 Topics in Automotive

**Course Prerequisite(s):**

The students must have completed the courses in the Automotive Analysis & Repair curriculum that precede this class, or have the instructor’s permission in order to take this class.

**Semester:**  Fall Semester 2011

**Instructor:**  Bill Roche

**Office No:** EIT Building Room #2

**Office Hours:** Posted

**Telephone:** Office: 434-797-8534; email wroche@dcc.vccs.edu

**Textbooks, Other Reference Materials:**

**Course Content:**

Computer Literacy Skills

Engine repair

Engine performance

Braking systems

Heating & Air Conditioning Systems

Electrical Systems

Alignment & Suspension Systems

Automatic Transmissions/Transaxles

Manual Transmissions & Final Drive Systems

**Attendance Requirements:**

Attendance is expected at all times. After 3 class hours of absence, 5 points will be deducted from the student’s final grade for each absence. Any material covered during absence will be the student’s responsibility to cover on his own. Any make-up tests must be taken immediately upon coming to school.

**Students who are receiving financial aid, please note:**

**Continuous Alert**

If a faculty member submits a continuous alert for a student because of poor attendance, **disbursement of financial aid proceeds by check will be blocked** until each faculty member submitting such an alert has given Admissions permission to remove the alert.  In addition to blocking the check request, a continuous alert blocks enrollment for future semesters until the block is removed.

**No Shows**

**If a student never attends a class or only attends one time before the refund deadline**, the student will be considered a ***“no show”*** and withdrawn from the class.  Faculty will report *“no shows”* to the division office by the refund deadline for all classes they teach.

**Withdrawal Policy:**

The last day to withdraw with full tuition refund is September 7, 2012. The last day to withdraw without mitigating circumstances taken by the is October 30, 2012.

**Course Grade Procedure:**

Points

50 Computer literacy test

50 ASE practice testing

100 Total possible points

A - 91 to 100

B - 81 to 90

C - 71 to 80

D - 61 to 70

F - 0 to 60

**Students With Special Needs:**

"Any student who feels that he or she may need an accommodation because of a disability (learning disability, attention deficit disorder, psychological, physical, etc.) please make an appointment to see me during office hours. Please contact the DCC ADA counselor at 797-8572 if you need to pick up your classroom accommodation forms or register with Disability Services."