Course Syllabus

Automotive Service Technology

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Maintenance and Light Repair A, B, C

*This is a one credit course that provides students with classroom and laboratory instruction in Safety, Brakes, Engine repair, Engine Performance, Automatic Transmissions, Manual Transmissions, Electrical, & Heating and A/C*

**Course Overview**

Maintenance and Light Repair provides students with the foundational knowledge and skills regarding Safety, Brakes, Engine repair, Engine Performance, Automatic Transmissions, Manual Transmissions, Electrical, & Heating and A/C. Strong emphasis is placed on system and component operations. On successful completion of this course, students are able to diagnose and repair automotive component related concerns. This course incorporates the personal and environment safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage and disposal of chemicals and materials in accordance with state, federal and environment regulations.

**Prerequisites**

Counselor contact

KUDER interest inventory

**NATEF Content**

The Maintenance and Light Repair program comprehensively meets the requirement for the (NATEF) National Automotive Technicians Service Excellence accreditation and prepares students for the (ASE) Automotive Service Excellence student credential. These courses may be taken in any order without a prerequisite. The content standards; task sheets; tools and equipment; program hours and safety standards are continuously monitored to assure (NATEF) requirements.

**CTE Component**

(CTE) Career and technical education student organizations are integral, co-curricular components of each career and technical course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace readiness skills and broaden opportunities for personal and professional growth.

**Safety**

Students will:

* Identify general shop safety rules and procedures
* Utilize safe procedures for handling of tools and equipment
* Identifying the proper placement of floor jacks
* Identifying the proper procedures for safe lift operation
* Utilizing proper ventilation procedures for working within the shop area
* Identifying the marked safety areas
* Locating and identifying the location of fire extinguishers and knowledge of use
* Identifying the location and use of eye wash stations
* Identifying the location of the posted evacuation routes
* Comply with the required use of safety glasses, gloves and shoes during shop activities
* Identifying and wearing appropriate clothing for shop activities
* Demonstrating awareness of the safety aspects concerning hazardous automotive systems
* Demonstrating awareness of the safety aspects concerning high voltage circuits
* Locating and demonstrating knowledge of Material Safety Data Sheets (MSDS)

**Automotive Service Tools**

Students will:

* Identify standard and metric size and measurement designations
* Demonstrate proper cleaning, storage, and maintenance of tools and equipment
* Demonstrate proper use of precision measuring tools (micrometer, dial indicator, etc.)

**Customer Service / Care**

Students will:

* Research applicable vehicle and service information, service history, service precautions and technical service bulletins
* Complete work orders to include: customer information, vehicle identifying information, customer concern, related service history, and identify concern, cause and correction
* Identifying purpose and demonstrate proper use of fender covers and floor mats
* Ensuring a vehicle is prepared to return to the customer per company/school policy (floor mats, steering wheel cover, etc.)

**Essential Questions**

Will the student be able to summarize purposes, rules, and regulations relative to the automotive program?

 Will the students be familiar with the many job opportunities and careers available in the automotive field?

Can the student set up and use specialized equipment?

Can the student interpret what technicians need to know from technical databases?

Can the student perform common repair tasks to specification?

**Supplies Required**

Sleeved shirts, long pants, closed toed shoes, safety glasses, notebook paper, pencil & pens, one 3-inch binder, combination lock, divider sheets for binder and calculator with square root function.

**Fees**

An $27.00 lab and a $13.00 club fee are required for the program. If $40.00 payment is made in a check, please make check payable to CCCA (Calhoun County Career Academy) and include a phone and driver’s license number.

**Attendance**

Attendance and participation are a mandatory requirement for the class.

**Grading System**

 **Grade Averages**

 90 - 100 = A

 80 - 89 = B

 70 - 79 = C

 60 - 69 = D

 Below 60% = F

\*\* It is the responsibility of the student to bring excuses to the instructor and to make up exams or assignments due to absences.

**Student Organization**

The Automotive Technology Program has membership opportunities with SkillsUSA. All students are encouraged to join.

**CTSO Employability and Leadership Activities**

Each student will prepare and deliver a Job Skills Demonstration, a prepared speech, and participate in a mock job interview based on the current SkillsUSA Technical Standards as graded exercises. Top performing students may have the opportunity to represent our school at state-level competition.

Under adult supervision, a balanced SkillsUSA Program of work will be developed and executed by students as a co-curricular, integrated potion of this course. Outstanding student achievement will be noted and submitted to SkillsUSA, ACRI, “Go Build”, and others for possibly further recognition.

**CTSO Technical Development Activities**

Students will practice and develop technical skills pertinent to this career pathway as outlined in SkillsUSA Technical Standards and Contest Projects through graded project-based learning experiences. Top performing students may have the opportunity to represent our school at state-level competition.

**Student Credentials**

Students who successfully complete each module written assessment with a score of 70% or higher and pass the performance evaluation will earn the NATEF module credential for each module completed. Safety evaluations have a state mandated 100% before any student may begin working in the lab.

**Assessment Procedures**

Grades for school reporting purposes are based on the first attempt at the written test and performance tests. Classroom and lab activities will be assessed, computed, and calculated with test grades to determine final grade.

NATEF Credentialing is only earned by achieving a 70% or higher score on each NATEF written test and passing the corresponding NATEF Performance Evaluation. Retesting is guided by NATEF policy.

All students will prepare and deliver demonstrations and presentations based on the Technical Standards outlined for SkillsUSA Job Skills Demonstration A, Job Interview, and Prepared Speech.

**Employability and Professional Development Behavioral Indicators**

In conjunction with the teacher, students will participate in self-assessment exercises that will describe and measure employability behaviors. Professional improvement plans will be developed, practiced, and assessed. SkillsUSA professional development materials may also be utilized.

**Math, Science, and Reading in the Content Area**

Students will be expected to demonstrate math and reading competencies at levels to commensurate with their grade level. A diagnostic math assessment will be given at the beginning of the semester to determine student readiness. Coursework will include graded exercises and projects that require such competencies.

**I HAVE READ THE ABOVE SYLLABUS AND FULLY UNDERSTAND THE PURPOSE AND MEANING OF THIS SYLLABUS.**

STUDENT SIGNATURE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PARENT/GUARDIAN SIGNATURE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_