Automotive Engine Repair Syllabus

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| **School Year:** | 2016-2017 | **H.S. Credits:** | 1 |
| **School Name:** | ACCTC | **Program:** | Automotive Technology |
| **Course Name:** | Engine Repair | **Teacher:** | Todd Stamps |
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**Course Number(s) Course Name(s) Credits**

ADX 150 Engine Repair .5

ADX Engine Repair Lab .5

**Prerequisite(s):** None

**Course Description**

This course will cover safety, theory and principles related to the design, and the operation and servicing of an engine.

**Materials:**

**Textbook**: Automotive Technology.

**Workbook:**  Automotive Technology.

**Research Software:**  Mitchell Pro-Demand.

**Training Software:**  Todaysclass.com

**Magazines:**  Hot Rod Magazine

**Objectives**

* Students will research applicable vehicle and service information, vehicle service history, service precaution, and technical service bulletins.
* Students will verify operation of the instrument panel engine warning indicators.
* Students will inspect engine assembly for fuel, oil, coolant, and leaks and determine necessary action.
* Students will install engine covers using gaskets, seals, and sealers as required.
* Students will remove and replace timing belt; verify correct camshaft timing.
* Students will perform common fastener and thread repair, to include: remove broken bolt, restore internal and external threads, and repair internal threads with thread insert.

**Course Outline**

* Engine Repair
* Cylinder Head and Valve Train
* Adjust valves (mechanical or hydraulic lifters)
* Lubrication and Cooling Systems
* Perform cooling system pressure and dye tests to identify leaks; check coolant condition and level; inspect and test radiator, pressure cap, coolant recovery tank, and heater core; determine necessary action.
* Inspect, replace, and adjust drive belts, tensioner, and pulleys; check pulley and belt alignment.
* Remove, inspect, and replace thermostat and gasket/seal.
* Inspect and test coolant; drain and recover coolant; flush and refill cooling system with recommended coolant; bleed air as required.
* Perform engine oil and filter change.

**Grading**

Grading Scale Grading Criteria

A 100-90 20% Written assignments

B 89-80 25% Daily performance grade by a rubric

C 79-70 30% Written and performance test

D 69-60 25% Final exam

F 59 and below

\*Courses with grades of less than a “C” will not count toward a certificate.

**Procedures for Makeup Work/Tests**

Missed work may be made up only if the absence is excused. All makeup work is the student’s responsibility to secure and turn within five school days after returning to class or no credit will be given. See student handbook for details.

**Supplies**

1. Closed Toe shoes (work boots or tennis shoes). No flip-flops are not allowed in the shop.
2. 1 inch blinder
3. Pencil and/ Pens

**Class expectations/Rules**

1. All rules in the student handbook will be enforced.
2. Be on time and in your seat when the bell rings.
3. No food or drink are allowed in class
4. Obey All shop and class safety rules.
5. Keep classroom and shop clean and in order.
6. If you open it, then close it. If you get tools out, then put them back!
7. Be respectful to the teacher and your fellow students.
8. NO HORSE PLAY!!

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Student Signature Date Parent/Guardian Signature Date

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Teacher Signature Date



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