# AUTO 1805 (formerly AUTO 1800)

**Division:** Career and Technical Education
**Department:** Transportation Technology
**Course:** AUTO 1805 (formerly AUTO 1800)
**Title:** Automotive Fuel, Emmissions, and Ignition Systems Lab
**Catalog Description:**

This course gives students the hands on lab experience required for Auto 1801. Students will have an understanding of the theory, operation, diagnosis, and repair of fuel, emission control systems, and ignition systems. **Co-requisite: The lab AUTO 1805 must be taken concurrently with the lecture AUTO 1801.**

**General Education Requirements:** N/A
**Semesters Offered:** TBA
**Credit/Time Requirement:** Credit: 2; Lecture: 0; Lab: 6
**Clock/Hour Requirements:** 90
**Offered for Non-Credit:** Yes
**Prerequisites:** N/A

**Corequisites:** AUTO 1805

**Justification:**

This course is required for Automotive Service Excellence (A.S.E.) certification. It is approved by the advisory committee for an AAS degree in Automotive Technology.

**Student Learning Outcomes:**

Upon successful completion of this course, students will be able to safely perform the tasks listed in the current edition of *A.S.E. Certification for Automobile Training Programs.*

**Content:**

Course objectives will be accomplished by providing students with learning experiences in the following subject areas:

- safety
- engine design and operation
- ignition systems
- fuel systems
- intake and exhaust systems

- emission control systems
- distributor ignition systems
- electronic ignition systems.

**General Education Outcomes:**

**Applied Education Outcomes:**

1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study.

Students will utilize electronic and written reference manuals and computer diagnostics to identify, troubleshoot, and repair fuel, emissions, engine performance, ignition systems, and other vehicle components.

2) Students will become aware of industry specific certification and develop skills sufficient to acquire the same.

The tests and homework for this class are designed to simulate and prepare the students to take A.S.E. certification tests.

3) Students will demonstrate safe practices and awareness of potential hazards in their field of expertise.

Students will study, test on, and practice a safe work environment in the lab area.

**Key Performance Indicators:**

Student Learning Outcomes will be assessed by two or more of the following Key Performance Indicators:

- complete shop tasks as outlined in the current edition of *A.S.E. Certification for Automobile Training Programs*
- student feedback as per A.S.E. requirements
- students passing A.S.E. tests
- students transferring to other post secondary institutions
- student performance in subsequent courses.

**Representative Text and/or Supplies:**

- Knowles, Don and Erjavec, Jack, *Automotive Engine Performance*, current edition, Thompson/Delmar Learning.

**Optimum Class Size:** 15
**Maximum Class Size:** 25

**Signatures:**

I hereby submit this course syllabus:

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Brent Reese, BS, Associate Professor

I hereby find this course consistent with the goals and resources of the Transportation Technology Department:

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Brent Reese, BS, Associate Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

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Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

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Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)