

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: AUT 165 **Credits:** 2

Course Title: Auto Diagnosis and Tune-Up

Course Description:

Presents the techniques for diagnosis of malfunctions in systems of the automobile. Uses dynamometers, oscilloscopes, and other specialized diagnostic and testing equipment. Demonstrates tune-up of conventional and rotary engines. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week. 2 credits

General Course Purpose:

To examine and perform diagnostic, repair, and tune-up techniques of common ignition, fuel, and engine control systems found on cars and light-duty trucks. Safety will be emphasized.

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Demonstrate a thorough knowledge of diagnostic tools and equipment used for troubleshooting and tune-up;
- Express a thorough understanding of electronic ignition system function and operation;
- Demonstrate the diagnosis and repair of electronic ignition system problems;
- Demonstrate comprehensive skill in tune-up techniques; and
- Demonstrate the ability to use computerized engine analyzers.

Major Topics to Be Included:

- Basic electronics theory
- Electronic ignition systems
- Computer controls
- Tune-up procedures
- Use of analytical equipment

Effective Date/Updated: June 3, 2019