

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
AUT 122 - AUTOMOTIVE FUEL SYSTEMS II (4 CR.)**

Course Description

Analyses major domestic and foreign automotive fuel systems to include carburetors and fuel injection systems. Includes detailed inspection and discussion of fuel tanks, connecting lines, instruments, filters, fuel pumps, superchargers, and turbo charger. Also includes complete diagnosis, troubleshooting, overhaul and factory adjustment procedures of all major carbureted and fuel injection systems. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose

This is a continuation of Automotive Fuel Systems I (AUT 121). Particular emphasis is placed upon detailed analysis troubleshooting and repair of automotive fuel systems. Emphasis is placed upon the use of the latest test procedures and equipment. Attention will be given to determining system defects, their probable cause, and making repairs and adjustments required for correction. The student will develop an understanding of test equipment used in diagnosing fuel management system defects including service and repair.

Course Prerequisites/Corequisites

Corequisite: AUT 121. The ability to read, write, and speak the English language

Course Objectives

Upon completion of this course, the student should be able to:

- Identify the sources of technical data for automotive fuel systems diagnosis and repair
- Discuss diesel fuel injection systems for passenger cars and light trucks
- Understand the operation and servicing of electronically controlled fuel injection systems
- Understand the methods of analysis of fuel injection system defects and determine the extent of repair and/or adjustments for correction of defects
- Develop a working knowledge of current engine management systems, diagnostic equipment and its proper use

Major Topics to be Included

- Advanced engine diagnosis
- Fuel and exhaust systems diagnosis and repair
- Enhanced emission systems diagnosis and repair including on-board diagnostics systems
- Engine management systems diagnosis and repair