

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
AUT 266 - AUTO ALIGNMENT, SUSPENSION, AND STEERING (4 CR.)**

Course Description

Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose

This course is designed to provide the student with a comprehensive knowledge of automotive steering, suspension and alignment systems. Emphasis is placed upon suspension inspection, diagnosis, repair, and adjustment, including tire mounting and balance, diagnosis and repair. Electronic suspension systems, stability and traction control will be introduced.

Course Prerequisites/Corequisites

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 components of the steering system
- Demonstrate an understanding of the technology and theories that relate to the operation of the steering system
- Demonstrate an understanding of the theories and terminology related to wheel alignment
- Understand the relationship between steering and suspension systems, and their effects on wheel alignment
- Identify problems related to tires, wheels, steering systems, suspension systems, and wheel alignment
- Use available service manuals in locating specifications related to the inspection, repair, and adjustment of steering and suspension systems and wheel alignment
- Identify and practice safe work habits
- Perform four wheel alignments using available alignment machines
- Introduce, identify and practice basic air bag safety

Major Topics to be Included

Introduction to alignment and diagnosis tools and equipment:

- Front and Rear wheel alignment angles
- Wheel and tire balance and vibration diagnosis and service
- Power steering operation, diagnosis and service
- Basic air bag removal and service
- Perform four wheel alignments
- Recirculating ball bearing steering gear: operation, diagnosis and service
- Rack-and-pinion steering gear: operation, diagnosis and service
- Introduce vehicle stability and traction control
- Introduce electronic controlled suspension systems