

NASSAU BOCES - ADULT EVENING PROGRAM
Joseph M. Barry Career & Technical Education Center
1196 Prospect Ave.
Westbury, NY 11590

COURSE OUTLINE

Course Name: **Auto Mechanics– I (Introduction to Auto Mechanics)**
Weeks: 10
Sessions: 20
Hours: 60
Days/Time Mon/Wed, 7-10 pm
Instructor: Stella Silva
Required Textbook: Automotive Technology: A Systems Approach, 4th Edition; ERJAVEC
Prerequisites: None
Adult evening Office: (516) 622-6950

Course Overview:

This course will cover the servicing and maintenance of the cooling system and the replacement of oil, air and fuel filters. Included in this course is the theory of the internal combustion engine and a basic understanding of electricity. The use of chemical and electronic testing equipment, as well as compression and cylinder leakage, will be covered and used as diagnostic tools. This is a Nassau BOCES **Green Certified** course.

Auto Mechanics Certificate: Requires Auto Mechanics I, Auto Mechanics II, Auto Mechanics III and Auto Mechanics IV for a total of 240 hours.

Course Topics

- Session 1: Orientation and Shop Safety
- Session 2: Hand and Power Tools
- Session 3: Vehicle Maintenance: Tires and Wheels
- Session 4: Vehicle Maintenance: Tires and Wheels
- Session 5: Vehicle Maintenance: Fluids, belts and filters
- Session 6: Vehicle Maintenance: Fluids, belts and filters
- Session 7: Basic Vehicle Suspension Systems
- Session 8: Basic Vehicle Suspension Systems
- Session 9: Basic Vehicle Steering Systems
- Session 10: Review and Midterm Exam
- Session 11: Brake System overview
- Session 12: Disc brake repair
- Session 13: Drum brake repair
- Session 14: Electricity: Batteries and charging systems
- Session 15: Starting and ignition systems
- Session 16: Fuel systems
- Session 17: Basic Engine operation
- Session 18: HYBRID ENGINE OPERATION*
- Session 19: Basic Exhaust and Cooling systems
- Session 20: Review and Final Exam

** Topic includes Green Technology/Sustainability*