I. General Information:

Instructor: Pete Vernazza  
Classroom Number: E12F  
Spring 2015  
Office: (408) 864-8216  
Tool Room: (408) 864-8768  
Email: vernazzapete@fhda.edu  
Faculty website: http://faculty.deanza.edu/vernazzapete  
Dates: 5-18-15 through 6-26-15  
Days: Monday through Friday  
Hours: 7:30 AM to 12:20 PM.  
Final Examination Date: 6-26-15  
CRN 00222  
Drop date – http://deanza.edu/calendar/springdates.html

For Spring quarter, my office hours are 6:30 am to 7:30 am and 12:20 to 1:20pm Monday through Friday. The location will be in my classroom (E12F) or my office (E13B).

Description: Performance tuning of automotive gasoline engines with an emphasis on reference material dealing with repair procedures, specifications, and efficient tune-up procedures. Intermediate level for usage of computer scanners and oscilloscopes. Diagnosing, troubleshooting, and repairing the systems designed for the control of engine temperature.

Student Learning Outcome -  
The student will be able to perform a Smog Inspection (Acceleration Simulation Mode), a visual inspection and functional inspection per CA State guidelines.

II. Course Objectives
A. Describe the operation of performance systems and components  
B. Demonstrate skills in diagnostic strategies and tune-up procedures  
C. Develop tune-up procedures to diagnose engine performance problems  
D. Recognize and identify the components that comprise a basic automotive cooling system  
E. Research technical information using various media

III. Essential Student Materials
Texts as listed  
Basic tool set and tune-up tool set  
Approved shop clothing, safety shoes, and safety glasses

IV. Essential College Facilities
Classroom and automotive technology laboratory

V. Expanded Description: Content and Form
A. Describe the operation of performance systems and components
1. Battery, cranking, and charging systems and components
2. Ignition systems
3. Computer systems
4. Fuel supply systems
5. Emission control systems

B. Demonstrate skills in diagnostic strategies and tune-up procedures
   1. Equipment capabilities
   2. Equipment operation
   3. Component identification, location
   4. Component testing
   5. Intermediate computer scanner training
   6. Intermediate oscilloscope training

C. Develop tune-up procedures to diagnose engine performance problems
   1. Driveability complaints
   2. Testing procedure organization
   3. Service and repair strategies

D. Recognize and identify the components that comprise a basic automotive cooling system
   1. Theory of operation
   2. Component identification
   3. System testing, servicing, and repairing techniques

E. Research technical information using various media
   1. Reference manuals
   2. Specification manuals
   3. Wiring diagrams
   4. Troubleshooting charts
   5. Electronic retrieval systems

VI. Assignments
A. Reading from texts and handouts
B. Lab assignments per expanded National Automotive Technology Education Foundation (NATEF) task list

VII. Methods of Instruction
Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
Quiz and examination review performed in class

VIII. Methods of Evaluating Objectives
A. Problem-solving quizzes
B. Objective examinations covering major lecture topics
C. Objective final examination
D. Lab assignments per NATEF task list
E. Participation in accordance with department policy

IX. Texts and Supporting References
A. Required Texts

B. Supporting Texts and References
   1. All Data electronic information system
   2. Mitchell On-Demand electronic information system
X. Classroom and Lab Conduct

1. Students will be dismissed from class for disruptive behavior per college policy
2. Students will wear safety glasses, coveralls, and work shoes for the duration of labs. Wear coveralls properly.

http://www.deanza.edu/studenthandbook/academic-integrity.html

XI. Grading System

90 to 100% = A
80 to 89%  = B
70 to 79%  = C
60 to 69%  = D
59% or lower = F

Per department policy, a minimum grade of “C” is required. Grades less than “C” in two courses are cause for dismissal from the program.