VICTOR VALLEY COLLEGE SYLLABUS

Fall 2017

# Course No.: Auto50 Course Title: Introduction to Automotive Units: 4

# Section No.: 63093 Class Hours: 8:00AM to 11:00 AM Days: T&TH\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Instructor Name: Lee Bennett Contact# 760-245-4271 Ex2403 \_\_\_\_\_\_\_\_\_\_\_\_

## FALL CALENDAR

**FALL Term Begins August 28**

**Labor Day Holiday (college closed) September 4**

**Veteran’s Day Holiday (college closed) November 10- 11**

**Thanksgiving Holiday (college closed) November 23-25**

**FALL Term Ends December 16**

**Sixteen (16) week term August 28 – December 16**

**Off-Campus Sixteen (16) week term August 28 – December 16 (Does not follow VVC calendar,**

 **see that site’s calendar for holidays)**

**First Twelve (12) week term August 28 - November 18**

**Second Twelve (12) week term September 25 – December 16**

**First Eight (8) week term August 28 – October 21**

**Second Eight (8) week term October 23 – December 16**

## WITHDRAWAL POLICY

**NOTE** – **CAMPUS IS CLOSED and** **CLASSES WILL NOT BE HELD ON CAMPUS THE FOLLOWING DATES:**

**September 4th, November 10th, 11th, 23rd, 24th, 25th**

STATEMENT OF ACCESS: Students with special needs are encouraged to meet with instructors to discuss the opportunity for academic accommodation and referral to Disabled Students Programs and Services (DSPS) and services per Administrative Procedure (AP 3440)

**Visit Victor Valley College online at** [**www.vvc.edu**](http://www.vvc.edu/)

## WITHDRAWAL POLICY & ATTENDANCE

The class instructor has the right to terminate a student’s enrollment when a student is absent for more than one hour for each unit of class credit, however it is the student’s responsibility to initiate the withdrawal or drop procedure in a timely manner if the student chooses to no longer attend the class. If a student does not drop the class before the final drop date, the student must receive a grade.

### Prerequisite:

None

### Required Material:

1. Victor Valley College Automotive Student Uniform Shirt
2. Safety glasses
3. Nitrile gloves
4. [CDX On-line Automotive Training](http://www.cdxauto.com/)

Access to **CDX on-line Automotive Training** can be purchased through the VVC book store or the VVC book stores website. You can also purchase directly from the CDX website.  CDX is a required component of this class and it is how you will access all of the course material and the ability to take chapter tests and the final exam.  In short, you cannot pass this class unless you have your own personalized access to CDX you will not be able to share with another student.  Your subscription is valid for one year. CDX will also be the course material for many other advanced courses, making it one of the best values of any degree major at VVC. If your financial aid has not yet been funded, in some instances the bookstore will allow a bookstore voucher contingent on your financial aid funding. You should speak to your financial aid representative for more information.

After creating your CDX account please enter VVC course code: **FE2374**

If you do not enter that code you will not get credit for any of the work completed on CDX

Light Vehicle 1 year on-line access code ISBN 9781284027327

Below is a coupon code that will allow students to buy CDX products direct from the publisher

**Code:** **2017DMCDX**

Please have students call customer service at 800-832-0034, Option 2…with credit card.    DO NOT Call CDXSUPPORT DESK- They help with login issues only!!

### Course Description:

This course provides the student with a basic knowledge of automotive systems and components. Information covered will service as a foundation and prerequisite for advanced automotive classes. Topics covered will include safety, tool and shop equipment uses, industry practices, technician certification, theory and design of the major automotive systems

### Course Objectives:

The student can then:

I Identify safety hazards in an auto repair shop/lab

a. Perform a shop safety inspection by recognizing shop hazards and determine the course of action necessary to bring the shop back into a safe condition. (1,2,3,4)

II Identify and evaluate the correct automotive tool or equipment to use to facilitate an automotive repair

a. Safely and correctly perform and automotive repair using the correct tool utilizing the correct technique. (1,2,3,4)

III Identify the major operating systems of an automobile.

a.Recognize and understand the components that comprise the major automobile systems and understand the interactive relationship of those systems for the purpose of diagnosing and repairing failures. (1,2,3,4)

IV Identify and evaluate the correct measuring instrument to be used during automotive repairs

a. Determine the correct measuring instrument to use for a particular purpose and correctly and safely perform a measurement using precision measuring tools. (1,2,3,

V Recognize and differentiate the automotive repair field areas of expertise.

a. Determine which specialty field best suites the student’s abilities and interests for determining which specialty field should be pursued during more advanced education. (1,2,3,4)

### Student Learning Outcomes:

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

1. Safely and responsible perform automotive repairs while minimizing the negative impact on the environment.

2. Recognize and understand the components that comprise the major automobile systems and understand the interactive relationship of those systems for the purpose of preparing to diagnose and repair failures.

### Grading Policy:

**Lab Projects**

Lab projects will be assigned as the correlate to the chapter being studied and will be completed on NATEF task sheets. These lab sheets are included in your on line aces but if you would like to use those you will need to print them at home prior to going to class. You can also buy all NATEF task sheets in one manual that will be good for all classes in the future that use CDX. To receive credit for NATEF Task Sheets must submitted for the grade on the day of the lab project. Late work will not be accepted.

**Chapter test**

Each chapter will conclude with a computer based chapter test, you may take the chapter test as many times as you would like and only your highest score will be recorded. Please pay close attention to the due dates. After the chapter test due date has passed the test can no longer be taken.

**Final Exam**

At the end of term there will be a hands on Final Exam

**Grading Scale**

100% thru 90% = A

89% thru 80% = B

79% thru 70% = C

69% thru 60% = D

59% or below = F

**Grade Value**

Lab 50%

Chapter test 20%

SP2 15%

Final 15%

**To receive text update for Auto50 such as cancelled classes or other important information:**

**Enter this number: 81010**

**Text this message: @akh877**

**Shop Safety Program**

All students participating in courses within the automotive program must pass the following courses before entering lab:

 **Mechanical Safety**

 **Mechanical Pollution prevention**

The safety program contained at **www.SP2.org** is intended to both educate the students on both safety and environmental concerns regarding the automotive industry. The student should log onto the website using the following information and complete all quizzes and final exams with a grade of 80% or greater. The student will have five attempts at the final exam before the exam will need to be reset by the instructor. Upon completion of each exam the student can print out a certificate suitable for framing or inclusion with a resume.

**www.**sp2.org

**Username:** 78442

**Password:** fact

**Pin:** Your pin is the last six digits of your college ID#

**Semester by the Week**

**Week#1**

**Introduction, Syllabus and CDX Orientation and Chapter #1**

* Homework- Pre-test for Chapter #1
* In Class Presentation Chapter #1 Careers in Automotive Technology
* Homework- Careers in Automotive Technology Final Exam
* Homework- Chapter #1 Final Exam

**Week#2**

**Chapter #2 Introduction to Automotive Technology**

* Home Work Pre-Test for Chapter #2
* In Class Presentation Chapter #2 Introduction to Automotive Technology
* Homework- Chapter#2 Final Exam

**Week #3, #4, and 5**

**Chapter #3 Introduction to Automotive Safety**

* Homework Pre-test For Chapter #3 Introduction to automotive safety
* In Class Presentation Chapter #3 Introduction to Automotive safety
* In Class Presentation Departmental Policies and Procedures
* Lab Activities Complete NATEF Task Sheets
	+ C451 General Shop Rules and Procedures
	+ C455 Shop Ventilation
	+ C458 Fire Extinguishers
	+ C460 Evacuation routs
	+ C465 MSDS Location
	+ Task Sheet- Shop Diagram
	+ Complete two shop cleaning lab sheets
* Homework Final Exam Chapter #3
* Home Work-Pretest Chapter #4 Personal Safety
* In Class Presentation Chapter #4 Introduction to personal safety
* Lab Activities Complete NATEF Task Sheets
	+ C459 Eye Wash Stations
	+ C461 Glasses, gloves and shoes
	+ C462 Appropriate Clothing
	+ C463 Hair and Jewelry
	+ C895 HID Safety
	+ C464 SRS, Hybrid and Brake control safety
* Homework Final Exam Chapter #4
* In Class Presentation SP2 Course
	+ - Homework Sp2
			* Complete Mechanical Safety
			* Complete Mechanical Pollution Prevention
			* Complete Ethics and You in the Automotive Industry
			* Complete Land that Job

**Chapter Tests 1-4 Due September 29th 2017**

**Week#6**

**Chapter #5 Vehicle, Customer and Service Information**

* Homework- Pretest Chapter #5
* In Class Presentation Chapter #5 Vehicle, Customer and Service information
* Lab Activities Complete NATEF Task Sheets
	+ VIN Information Task sheet
* Homework- Chapter #5 Final Exam

**Week#7**

**Chapter #6 Tools and Equipment**

* Homework- Pretest Chapter #6
* In Class Presentation Chapter #6
* Lab Activities Complete NATEF Task Sheets
	+ C466 Tool Identification
	+ C467 Standard and Metric
	+ C896 Proper use of precision Tools
* Homework- Chapter #6 Final Exam

**Week#8**

**Chapter #7 Vehicle Protection and Jack and Lift Safety**

* Homework- Pretest Chapter #7
* In Class Presentation Chapter #7
* Lab Activities Complete NATEF Task Sheets
	+ C473 Proper Fender Cover Usage
	+ C476 Vehicle Protection
	+ C453 Floor jack and Stands
	+ C454 Lift Safety
* Homework- Chapter #7 Final Exam

**Week#9 & 10**

**Chapter #8 Vehicle Maintenance Inspection**

* Homework- Pretest Chapter #8
* In Class Presentation Chapter #8
* Lab Activities Complete Task Sheets
	+ Complete two comprehensive vehicle inspections
* Homework- Chapter #8 Final Exam

**Chapter Tests 5-8 Due November 3rd 2017**

**Week#11**

**Chapter #8 Communication**

* Homework- Pretest Chapter #9
* In Class Presentation Chapter #9
* Lab Activities Complete Task Sheets
	+ C472 Service Request
	+ C590 Repair order
	+ C474 3 C’s
	+ Complete Lock out tag out form
* Homework- Chapter #9 Final Exam

**Week#12**

**Chapter #27 Servicing Wheels**

* Homework- Pretest Chapter #27
* In Class Presentation Chapter #27
* Lab Activities Complete NATEF Task Sheets
	+ C222 Rotate Tires
* Homework- Chapter #27 Final Exam

**Chapter #28 Steering Principals**

* In Class Presentation Sub Area #1 Intro to Steering

**Week#13**

**Chapter #30 Principals of Braking**

* Homework- Pretest Chapter #30
* In Class Presentation Chapter #30
* Lab Activities Complete NATEF Task Sheets
	+ C251 Install Wheel and Torque Lug Nuts
	+ C632 Brake Pad Wear
* Homework- Chapter #30 Final Exam

**Week#14**

**Chapter #36 Principals of Electrical Systems**

* Homework- Pretest Chapter #36
* In Class Presentation Chapter #36
* Lab Activities Complete NATEF Task Sheets
	+ C644 Battery inspection
	+ C820 Jump start a car
	+ C301 Soldering
* Homework- Chapter #36 Final Exam

**Chapter #41 Principals of heating and Air condition systems**

* In Class Presentation Chapter #41 HVAC Overview

**Week#15**

* **Instructor “Flex” week**
* **Chapter Tests 9,27,28,30,36,41 Due December 9th 2017**

**Week#16**

* Final Exam Review
* Final Exam

**Victor Valley College Automotive Technology Department**

**Student Policies and Procedures**



In addition to the following policies and procedure, students are governed by and expected to abide by the general rules, code of ethics and conducts of Victor Valley College. Please refer to the student handbook for complete information.

**General Rules**

1. All repairs must be supervised by an instructor or qualified assistant designated by the instructor. The shop may not be used outside of regular scheduled class time or without the permission and presence of an instructor.
2. If a student needs to leave the shop area during regular scheduled class time they are asked to inform the instructor.
3. Student are encouraged and in some courses required to bring tools to lab sessions, however VVCC or its employees are not responsible for the theft of your tools. VVCC will provide an open top, unmonitored, locked tool storage area, however you are leaving locked toolboxes at your own risk. If you do not feel comfortable leaving your tools under these conditions you are encouraged to store them elsewhere.
4. Only students that are currently enrolled in a class are permitted to be in a classroom, the auto shop library, parking area or in the auto shop work area.
5. All hazardous waste including oil, brake fluids, oil filters, gasoline, solvents and any other substance generally considered by the State of California to be of a hazardous nature must be stored and disposed of properly, if you have questions contact the Automotive Instructional Assistance
6. Students are encouraged to review the (MSDS) Material Safety Data Sheets before contacting any material or chemical in the shop. MSDS are located in the auto shop library.

**Service Order Procedures and Lab Rules**

1. The instructor must approve all lab projects before work has begun.
2. Students will not be permitted to work in the lab area until they have passed both SP2 automotive safety and pollution training courses and tests with a score of 80% or higher.
3. All vehicles entering the auto shop parking area must have a current work order.
4. Keys will be given to the service advisor and kept in a locked storage area for the duration of the vehicles stay in the automotive department. Keys can be checked out during lab sessions from the tool crib with a washer from the tool crib.
5. Only vehicles with a current repair order will be permitted in the shop or rear parking areas. Student parking is provided in designated parking areas only.
6. All vehicles must have steering wheel covers, seat cover, floor mats and fender covers applied before repair work is started.
7. Students will be giving a technician work sheet and must document all work that is performed and all needed additional work on that sheet.
8. An instructor must verify all repairs and the technician worksheet must be signed by the instructor before the repair order can be closed and the vehicles can leave the lab area.
9. After repairs have been completed and repair orders have been closed vehicles must be removed from the shop and rear parking areas. Vehicle left without permission may be subject to impound.
10. The instructor will have the ability to stop any project, assignment, repair or operation at anytime and for any reason if he or she feels that is being conducted in an unsafe manner, a safety rule is being violated, or it poses a hazard to anyone.
11. The internet may be accessed in the computer lab of the automotive department during scheduled class time and only with the permission of the instructor. The following web sites are the only sites that may be accessed. Students found in violation of the internet rules or procedure will be subject to the following procedures or may be subject to immediate dismissal depending on the severity of the infraction.
12. Respiratory protection is required whenever in the presence of vapors or airborne particulate matter of any kind
13. Students are not permitted to use any piece of shop equipment without being properly trained on its usage and safety practices.
14. Students are not permitted to drive or road test a vehicle without being accompanied by the instructor or Instructional Assistant. If the road test is with the instructional Assistant the student must acquire permission from the instructor.
15. When road testing a vehicle all laws must be obeyed and the vehicle may not be operated in an unsafe manner.
16. Students who do not possess a valid California driver’s license may not operate or sit in the driver’s seat of a vehicle.
17. Before starting any vehicle ensure that both feet are in the vehicle, all doors are closed, seat belt is on and you are prepared to operate the vehicle.
18. Wheels must be chocked on all vehicles before repair work is started.
19. A shop exhaust ventilation hose must be connected to the exhaust pipe of any vehicle running in the auto shop.
20. If a student doesn't understand the complete and safe operation of a piece of equipment, service operation or procedure it is not only their right but the responsibility of the student to stop and ask for proper training from an Instructor and Instruction Assistant before proceeding.

**Personal Conduct and Behavior**

1. Profanity and inappropriate conversation is unprofessional and will not be permitted.
2. In the Automotive Industry it is very important that you not only behave in a professional manner, but that you also look professional. Therefore the following mandatory dress policy must be followed:
	1. The Victor Valley College Automotive Department Shirt must be worn to all lab and class sessions.
	2. The designated department shirt must be clean, unwrinkled and worn properly at all times.
	3. You must be bathed, clean, free of malodor, properly groomed and attired before coming to class. This determination will be made by the instructor and should be consistent with what an employer would expect during working hours.
	4. Your hair must be neat and clean.
	5. Fingernails must be clean and cut short. For Safety reasons acrylic are not allowed.
	6. Students not abiding by these policies will be dismissed from class for the day and will not be allowed to make up missed work.
	7. Any student who fails to conduct themselves in a professional manner will be removed from the class and forwarded to the Dean for corrective action.
	8. Students are required to conduct themselves in a safe and professional manner when in the classroom, lab area and when on the VVCC campus.
	9. Victor Valley College is a smoke-free institution. Smoking or the use of any tobacco products **or smokeless devices such as e-cigarettes,** is prohibited at all campus sites. Students, staff members and visitors to the campuses of Victor Valley College are permitted to use tobacco products or smokeless devices in their personal vehicles only.
	10. Students are not permitted to take breaks in the rear parking area
	11. Eating or drinking is not permitted in the shop, library/computer lab, or the rear parking area.
	12. Thievery of any kind is against department and college rules.
	13. Safety glasses are required when in the shop, whether working on a lab project or not. Smoked colored glasses, sunglasses, and some tinted glasses do not meet the auto shop standard. Please see instructor before purchasing glasses for proper identification. The instructor will have final say on what is or is not safe and appropriate. Some operations may require the additional use of a complete safety shield or tinted lenses for welding or cutting.
	14. Proper close-toed shoes are required in the lab area.
	15. Short pants are not permitted in the lab area.
	16. Loose or baggy clothing is not recommended and may be unsafe. The instructor will have final say on what is or is not safe and appropriate.

**Shop Cleanup and Maintenance**

1. Students are responsible for keeping and maintaining a clean lab area while working in lab.
2. Students are to ensure that all lab areas are thoroughly cleaned before leaving the lab area.
3. Cleaning up oil spills from the shop floor:
	1. Apply oil absorbent to oil spill and allow sufficient time for oil absorbent to absorb fluid.
	2. Sweep up an either recycle or dispose of absorbent in oil absorbent disposal container.
	3. Wipe up remaining residue with shop rags and recycle shop rags.
	4. After determining floor is free of oil, mop floor with hot soapy water.
	5. After ensuring mop water is free of contaminates, dispose of mop water in shop sink.
	6. After disposing of used mop water thoroughly clean mop head and bucket and return empty bucket and clean mop to storage rack. Ensure that mop is returned to the hanging position to ensure that it dries.
	7. (Please note that complete shop cleaning instructions are contained the in Shop Maintenance guide, however due to the legality of waste oil disposal a brief explanation was given here.)
4. All vehicle must be removed from the shop and work areas, parked and locked at the end of the lab session.
5. All benches must be cleaned and returned to the proper area at the end of the lab session.
6. Food and drinks are not allowed in the computer or service advisor areas.
7. Please notify your instructor and the instructional assistant in the event of a large hazardous materials spill.

I have read, fully understand and agree to be abide by the Victor Valley College Departments Policies and Procedures.

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Print Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**After signing and dating above, please return the entire packet. Your copy of this document is included in the course syllabus of record of all Victor Valley College Automotive Courses.**