Basic Course Information

Semester	Fall 2014	Instructor's Name	Jose Lopez
Course Title & #	AUT 125	Instructor's Email	Jose.lopez@imperial.edu
CRN #	10818	Webpage (optional)	
Room	1102-1103	Office	1102
Class Dates	Aug 18, 2014 -Dec 13, 2014	Office Hours	None
Class Days/Times	M-8:35-11:50 T-Th-8:30-9:50	Office Phone #	760-355-6361
Units	4 Units	Who students should contact if emergency or other absence	Instructor:760-355-6362

Course Description

This course covers the principles of instruction in disassembly, inspection, installation and adjustments of the modern brake system. Laboratory activities stress brake system diagnosis, repair, machining, and overhaul procedures and proper use of tools and equipment utilized in the industry. Upon successful completion of this course, students are prepared to take the automotive service excellence (ASE) certification examination in brakes.

Student Learning Outcomes. 17 Stores 1816 and 18

IVC as an institution has adopted five student-learning outcomes (SLO'S). They are interconnected with each other. They will be inherent throughout this course.

1. Communication

- 2. Skills
- 3. Critical Thinking Skills
- 4. Information Literacy
- 5. Global Awareness

Course Objectives

Upon successful completion of this course, students will be able to:

- A. Comply with all safety shop procedures associated with stands, air tools, hydraulic jacks, and car lifts.
- B. Have a thorough understanding of the brake system and its components
- C. Describe the power brake systems and anti-lock operation
- D. Describe the proper steps and procedures of disc brake and drum brake overhaul

Textbooks & Other Resources or Links

Modern Automotive Technology Book and Workbook Author: James E. Duffy

Instructional Methods:

Lectures, textbook/workbook, assignments, worksheets, video guide, internet information, live demonstrations, quizzes, mid-term and final tests.

<u>Out of Class Assignments</u>: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time <u>and</u> two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

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Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <u>http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/</u>

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Anticipated Class Schedule // Calendar

Week	Activity, Assignment, and/or Topic	Class Activities	Homework/ Exams
Week 1	Orientation:	Show Safety Videos	37: 1
•	-Safety	Show Salety Videos	Video
	-Types of Brakes systems		Safety
	-Safety and Brakes		Test
;	fundamentals		
	-Principles of braking and	N. N	
•	Drum/disc brakes		
	-Parking, hydraulic, Power	9 9	
	Brake boosters		
•	-Antilock braking system,		
	-Anthock blaking system,		
Part II	-Brake system and repair		
I ULL II	Chapter 5 Autom 1: 0.5		
	Chapter 5 Automotive Safety	Pages 27-30	Class Book
. •	-Describe the typical Layout		Review
	sections of an auto shop		
	-List the types of Accidents	Study Guide	Questions
Weels 2	that occur in an auto shop		Pages 68-69
Week 2	Chapter 3 Automotive Tools	Study Guide Worksheets	Class Book Review
	-Identify common Automotive	And review with the class	
	hand tools	Pages 19-22	Questions
	-Select the right tool for a		Pages 45-46
	given job (homework)		
	-Use hand tools safely	··	
Week 3	Chapter 71 Brake Systems	Study Guide	Review
	-Explain the hydraulic		
	Mechanical principles of Brake	Worksheets	Questions
	systems		Questions
	-Identify the major parts of an	Review with the class	
	automotive brake system	ite view with the class	
	-Discuss drum and disc brakes		Quiz #3
	Discuss the operation of		
۰. ۱	parking brakes	· ·	Pages 1391-1392
Week 4	Brake Services		
Week 5	Chapter 6		
WCCK J	-	Study guide worksheets	Quiz #4
	-Micrometers Telescoping	And review	Class book
	gauges and small hole gauges		Review questions
Week 6	Vernier calipers	Pages 31- 34	Page 83
	Feeler gauges		
	Chapter 9	Study guide	Class book review
	-Fastners, threaded fastners	Worksheets	Questions
	-Kev and nins snan rings	····	

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	rivets -Adhesives, sealants, seals -Gaskets	Review With the class Pages 41-42	Page 125
Week 7 & 8	Chapter 72 -Diagnosis of common brake problems -Inspection and maintenance of brake system -Describe basic procedures for servicing a master cylinder and a brake booster	Study guide worksheets and review with the class Pages 365-372	Quiz #5 Review Questions Page 1418
Week 9	Mid-Term Exam	· · ·	
Week 10 & 11	Chapter 73 -Identification of the major parts of the brake system -Describe the operation of anti- lock brake systems -Diagnosis anti-lock Brake systems -Repairing anti-lock brake systems	Study guide worksheets And review with the class Pages 373-376	Quiz # 6 Review Questions Page 1442
Week 12	Chapter 65 -Tire types and basic -Thread patterns -Tire markings -Tire service -Improvement and advance	Study guide worksheets and review with the class Pages 331-336	Quiz # 7 Class book Review Questions Pages 1254-1255
Week 13	Chapter 17 -Computer control system -Components of a computer -Sensors -Electronic control -Module operation -Actuators	Study guide Worksheets Pages 77-82	Quiz # 8 Class book Review Questions Page 259
Week 14	Chapter 18 -On-board diagnostics -Diagnostic troubles codes -Activating self-diagnostic system	Study guide Pages 83-88	Quiz # 9 Homework Review Page 279
Week 15	Preparation for Automotive Service Excellence (ASE) Brake Exam		
Week 16	Review and preparation for Final Exam		· ·

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Academic Honesty

- <u>Plagiarism</u> is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- <u>Cheating</u> is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment ;(c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment, (e) use of a commercial term paper service

Additional Help. Discretionary Section and Language

- Blackboard support center: http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543
- <u>Learning Labs</u>: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Learning Services (library). Please speak to the instructor about labs unique to your specific program
- <u>Library Services</u>: There is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. If you feel you need to be evaluated for educational accommodations, the DSP&S office is located in Building 2100, telephone 760-355-6313.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see <u>http://www.imperial.edu/students/student-health-center/</u>. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762

Information Literacy.