

Class start Date :14 February

Class end: 10 Jun, 2023



Note to Instructor: Replace the placeholder text beneath the headings with the appropriate information for your course. Please note that all sections, with the exception of "Other Course Information," are required elements.

Basic Course Information

Semester:	Spring 2023	Instructor Name:	Jose Lopez
Course Title & #:	Mechanical Automatic Transmissions	Email:	Jose.lopez@imperial.edu
CRN #:	21051	Webpage (optional):	
Classroom:	1101	Office #:	1104
Class Dates:	Feb. 14 - Jun 10	Office Hours:	1.00 pm – 2:00 pm
Class Days:	T-TH	Office Phone #:	760-355-6163 - CELL 760-791-9574
Class Times:	T-TH 6: 00 – 10:15 pm	Emergency Contact:	Contact me by cell phone, text or E-mail.
Units:	4 UNITS – Lec :2 hrs -Lab 6 hrs	Class Format:	Face to face

Course Description

Design construction, mechanical, and hydraulic function and repair of the Automatic Transmission.

Upon successful completion of this course students are prepared to take the Automotive Service Excellence (ASE) certification examination in automotive transmissions.

Course Prerequisite(s) and/or Corequisite(s)

[Paste in the course prerequisite(s) and/or corequisite(s) from the COR, located at <https://imperial.curricunet.com/Search>]

NONE

Student Learning Outcomes

1. Diagnose fluid loss and condition concerns; check fluid level in transmissions with and without dipsticks; determine necessary action. (IL01, IL02, IL03)
2. Inspect and replace external seals, gaskets, and bushings. (IL01, IL02, IL03)
3. Disassemble, clean, and inspect transmission/transaxle. (IL01, IL02, IL03)
4. Assemble transmission/transaxle. (IL01, IL02, IL03)

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

To prepare graduates for employment as automotive mechanics, parts and supply house technicians and service station mechanics and operators. The training program is intended to meet the entry level skill needs in the occupational field of Automotive Technology(mechanics).

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

- A. [Comply with all safety shop procedures associated with standards, air tools, hydraulic jacks, and car lifts.](#)
- B. [Have a thorough understanding of Automotive Transmissions.](#)
- C. [Describe the power flows systems of the Automotive Transmissions.](#)
- D. [Describe the proper steps and procedures to disassembly and assembly of Automatic Transmissions.](#)

Textbooks & Other Resources or Links

Modern Automotive Technology Book & Workbook, 10Th Edition.

Author: Van Gelder 1SBN:978-1-64564-688-4

Pens, pencils, highlights, standard writing paper, and safety goggles, appropriate footwear, shirt and pants for shop.

Course Requirements and Instructional Methods

Out of Class Assignments: The department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates no less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Library computer software assignment. and review, and answer the level 1, level 2 and level 3 ASE questions. Read, review, and answer Automotive Service Excellence questions from ASE class booklet Motor age.

The assignment consists of: 1.General transmission transaxle - questions. 2.Transmission transaxle repair - 25 questions. There will be a Mid.Term exam. Each will be worth 25 percent of your grade. The Mid-Term will have 50 questions on ASE type, the Final Exam will have 100 ASE type questions. Quizzes will make up 25 percent of your grade. The last 25% of your grade will be on projects assigned as part of the lab section.

Course Policies

1.A student who fails to attend the first meetig of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student s status will be the same as that of any other student who desires to add a class. It is the student s responsibility to drop or officially withdraw from the class. See General Catalog for details.

2. egular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.

Absences attributed to the representation of the college at officially approved events conferences, contests, and field trips will be counted as excused absences.

. What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.

Students are to comply with the following rules of netiquette 1. identify yourself, 2. include a subject line, avoid sarcasm, respect others opinions and privacy, 5 . acknowledge and return messages promptly, 6.copy with caution, 7.do not spam or jun mail, 8.be concise, 9.use appropriate language, 10. use appropriate emoticons emotional icons to help convey meaning, and 11. use appropriate intensifiers to help convey meaning do not use ALL CAPS or multiple exclamation marks (!!!!!).

Other Course Information

Shop/ Lab Area

- *Safety test must be passed to work in the shop and complete required lab exercise.*
- *Safety glasses are required to be worn at all times while in the shop area, safety glasses are the student responsibility (students not wearing safety glasses will be ask to leave the class for that day no exceptions).*
- *Clean up your area and any other lose debris or trash.*
- *Wear all required safety protection and comply with posted signs.*
- *No shorts or open toe foot wear, always be prepared to go into the lab area.*
- *Comply with tool check out policy and return tools clean.*
- *Do not perform any work on any vehicle outside the assigned task without permission from your instructor.*

Parking:

No student parking by the building, the only exception is on lab time if your vehicle is a project (instructor approved). Speed limit must be kept at or under 5MPH.

Parking permit is required at all times.

Projects:

All projects are to be taken with the student's unless otherwise approve by the instructor. All approve projects must be removed from campus prior to finals.

All projects must have a written work order (R/O).

Shop Maintenance:

All work will cease 20 minutes prior to end of class.

All work areas must be cleaned.

Course Grading Based on Course Objectives:

Assignment and activities consist of:

- *Class Textbook*
- *Reviews*
- *Videos*
- *Laboratory activities*
- *Videos*
- *Service manual*
- *Hands-on each section*
- *Other materials*

Grading Criteria = Excellent

1. Grading System:

A= 90% -100% of points = Excellent

B= 80% -89% of points = Good

C= 70% -79% of points = Satisfactory

D= 60%- 69% of points = Pass, less than satisfactory

Below 60 % = Fail

Other Methods Consist of:

- *Class Textbook:*
- *Dermonstrations (hands on)*
- *Discussions*
- *Group activities*
- *Individual assistance/Guidance*
- *Shop/Lab Activities*
- *Computer assisted Instruction*

<u>Activities</u>	<u>Points</u>
• <i>Book worksheets, quizzes, hand-on, eorksheets.....</i>	<i>240</i>
• <i>Mid-term</i>	<i>40</i>
• <i>Final-exam.....</i>	<i>40</i>
• <i>Total points.....</i>	<i>320</i>

Very important:

- **Mid-Term** will be given on the week of march 8.
- **Final-Exam** will be given on the week of June 8.
- There are no make-up exams unless you have a very good reason and make arrangements with the instructor before the exam.
- Final grades can be raised or lowered based on your preparation and participation in class. It benefits you to be engage and participative.

Grades:	Points
• Book worksheets, quizzes.	140
• Book worksheets, quizzes. Lab activity, hands-on worksheets.	240
• Mid-term	60
• Final-exam	60
• Total points	500

Course Grade:

The course grade is based on total points accumulated during the semester. There is a total of 500 points available. Grades are determined by dividing the total points you earn by the total points available to get your percentage. (Total points may vary if I change the assignments in a particular week).

CLASS SYLLABUS
AUT 220 -AUTOMATIC TRANSMISSIONS
Class assignment and Exams

Textbooks: Modern Automotive Technology Book. 10TH Edition, Author: James E. Duffy

ISBN: 978-1-64564-688-4

IMPORTANT: Midterm Exam (60 Points) Will be given on March 30, 2023

	TEXTBOOK	CLASS	POINTS OF GRADING
Weeks:	<u>TOPIC CHAPTERS</u> Assignments	Activities Workbook	Quiz/ Exams / Assignments
Week 1	Introduction Automatic Transmission: Shop Automotive safety Review	Review safety videos 1 ,2, 3	Safety Exam- True/ False Matching, multiple choice, and review questions ____points
Week 2	Types of Transmissions Repair	Review Transmission videos 1 ,2, 3	Fill-in Transmission Worksheet ____points
Week 3	Chapter #1 -Chapter Automobile Textbook:- Read pages 3-16	Chapter#1 Class Review Worksheets from workbook	Answer: Worksheets Questions pages_____ Quiz ____points
Week 4	Chapter # 3 - Vehicle Basic tools Textbooks: Read pages 29-40	Chapter #3 Worksheets from workbook Pages_____	Answer: Worksheets Questions pages:_____ Quiz ____points
Week 5 Part I	Chapter #4 Power-Tools and Equipment Read pages :42 -52	Chapter # 4 Worksheets Pages_____	Answer: Worksheets Questions pages:_____ Quiz ____points
Part II -	Chapter # 6 Automotive Measurement Pages 67-74	Chapter # 6 Worksheets Pages_____	Answer: Worksheets Pages:_____ Quiz ____points



Week 6 Part I	Chapter #7 Service information and work order pages: 78-84	Worksheets Pages_____	Answer: Worksheets Questions pages:_____ Quiz ___points
Week 7 Part II	Watch Video - Ford Part I (AODE) Transmission Watch Video - Ford Part II (AODE) Transmission MID-TERM EXAM - March 30	Part I Worksheets Part II Worksheets	ASSIGNMENTS: Review video questions VIDEO ASSIGNMENT ___points Review video questions VIDEO ASSIGNMENT ___points
Week 8	Chapter #65 Automatic Transmission Technology Read pages: 984-1002	Chapter #65 Worksheets Pages_____	Answer: Worksheets pages:_____ Quiz ___points
Week 9	Chapter #66 Automatic Transmission Diagnosis, service and repair Read pages: 1005-1016	Chapter #66 Worksheets Pages_____	Answer: Worksheets pages:_____ Quiz ___points
Week 10 Part I	General Motors Transmission. 4L60E Watch video (Part I)	Part I Worksheets	Assignment Activity Review video questions VIDEO ASSIGNMENT ___points
Week 10 Part II	Watch video (Part II)	Part II Worksheets	Review video questions VIDEO ASSIGNMENT
Week 11	Chapter # 67 Drive Shaft Transfer Case Technology Textbook: Read pages 1019 - 1028	Chapter # 67 Worksheets Pages_____	Assignment Answer: Worksheets pages: _____ Quiz ___points

Week 12	<p style="text-align: center;">AUTOMOTIVE TRANSMISSION WORKBOOK</p> <p style="text-align: center;">Activity 4L60-E – Testing Transmission Solenoids Worksheet pages:14-1 - 14-6 Points for this activity_____</p>
Week 13	<p style="text-align: center;">ACTIVITY - 4L60-E - Transmission Solenoids Circuit and Diagnostic</p> <p style="text-align: center;">Pages 14/7 - 14-10 Points for this activity_____</p>
Week 14	<p style="text-align: center;">ACTIVITY</p> <p style="text-align: center;">4L60-E Transmission Electronic Control System Pages 14/12 – 14/30 Points for this activity_____</p>
Week 15	<p style="text-align: center;">Class Discussions and Review <u>A.S.E.</u> Questions</p> <p style="text-align: center;">Chapters: - #65-66 Transmission Fundamentals and Diagnosis, Service, Repair. Worksheets</p>
Week 16	<p style="text-align: center;">FINAL WEEK EXAM</p> <p style="text-align: center;">June 8, 2023</p>

****Tentative, subject to change without prior notice** - Lecture and Shop Activities**