



Basic Course Information

Semester:	Summer 2024	Instructor Name:	Pat Barbee
Course Title & #:	AUT 220 Mechanical Automatic Transmissions	Email:	Pat.barbee@imperial.edu
CRN #:	21051	Webpage (optional):	
Classroom:	1602/1101	Office #:	1104 A
Class Dates:	JUNE 17 TO JULY25	Office Hours:	2:20-3:20 M-TH
Class Days:	Monday thru Thursday	Office Phone #:	
Class Times:	8:00 TO 2:20	Emergency Contact:	Tisha Nelson – Staff Support Technician (760) 355-6361
Units:	4	Class Format:	Face to Face

Course Description

Design, construction, mechanical and hydraulic function and repairs of the automatic transmission. (CSU)

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

None

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

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

Course Objectives

Upon satisfactory completion of the course, students will be able to (these objectives are subject to change):

1. 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).

Textbooks & Other Resources or Links

Modern Automotive Technology by James E. Duffy (ISBN:9781645646884)

Course Requirements and Instructional Methods

This course will consist of a variety of instructional methods and assignments including, but not limited to, lectures, class discussions, group activities, and hands-on shop experiences.

Course Grading Based on Course Objectives

Grading System:

- A – 513-570 of points = Excellent
- B – 456-512 of points = Good
- C – 399-455 of points = Acceptable
- D – 342-398 of points = Below Average
- F – 341 points and below = Failing

Activities	Points
Homework	70
Quizzes	290
Labs	130
Final Exam	80
Total Points	570

Course Policies

- A student who fails to attend the first meeting 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.
- Regular 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.
- **Electronic Devices:** Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- **Food and Drink** are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.

- **Disruptive Students:** Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- **Children in the classroom:** Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

Other Course Information

Shop/Lab Area Safety

- **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's responsibility (students not wearing safety glasses will be asked to leave for that day, no exceptions).**
- **Clean up your area and any other loose debris, trash, or spills.**
- **Wear all required safety protection and comply with posted signs.**
- **No shorts or open toe footwear, always be prepared for lab exercises.**



Anticipated Class Schedule/Calendar

DATE	Activity, Assignment, and/or Topic	Assignment Due
WEEK 1	Syllabus, Safety test Chapter 3 Basic Hand tools. Chapter 19 Fundamentals of Electricity and Electronics	Pages 29-41
WEEK 2	Chapter 65 Basic Automatic transmission	Page 984
WEEK 3	Chapter 65 continued Transmitting Power	Pages 984
WEEK 4	Chapter 65 Torque Converter	Pages 986
WEEK 5	Chapter 65 Automatic transmission shafts	Pages 988-993
WEEK 6	Chapter 65 Automatic transmission Hydraulic system and Final Exam	Pages 994-997

*****Subject to change without prior notice*****