



AUTO 778/878 Manual Transmission I

<u>Instructor:</u>	Thomas G. Broxholm
<u>Contact Information:</u>	Office Phone: 650-738-4131 Cell Phone: 415-577-9610 Office #: 8111 Room #: 8103
<u>Office Hours:</u>	Tuesday through Friday 1:00p to 2:00p.
<u>Meeting Time:</u>	6:30 pm to 9:30 pm Tuesday and Thursday
<u>Meeting Dates:</u>	1/20/2009 to 3/12/2009
<u>Website:</u>	http://www.smccd.net/accounts/broxholm
<u>Email:</u>	broxholm@smccd.edu
<u>Books & Materials:</u>	Manual Drive Trains & Axles 5 th Edition. By: Thomas Birch -----(Book store) Notebook, dividers, paper, #2 pencil, Scranton answer sheets. Safety Glasses -----(Tool Room) Basic hand tools. A tool list will be provided to you.
<u>Course Units:</u>	2 units Transferable to the CSU system.
<u>Prerequisites:</u>	None
<u>Description:</u>	This course is designed to give the student a thorough understanding of Automotive Manual Transmissions, Transaxles, Transfer Cases & Clutch Systems. Servicing overhaul and system diagnosis will be stressed. Forty Five percent of this course will be hands on work experience.
<u>Homework:</u>	All homework must be turned in before the end of class on the due date. Any homework turned in afterwards will be considered late. Late homework is subject to a 20% loss of points. No late assignment will be excepted after the assignment has been graded.

Final Exam:

There is a multiple choice final exam scheduled for the second to last class meeting.

Class Participation:

Class participation is an observation grade given by the instructor. This grade can and will fluctuate through out the semester. The instructor will be looking at classroom behavior, preparedness, lab participation and overall conduct.

Student Evaluation:

This is done on a point system with category weights.

Homework	30 %	Attendance	10%
Written Final exams	30%	Lab	30%

The above percentages are subject to change and the students will be notified if a change is made.

Course Grading:

A = 90% - 100% B = 80% - 89.9%
 C = 70% - 79.9% D = 60% - 69.9%
 F = 59.9% and below.

Progress Reports:

Students can check their progress though my website link. The student will need to know his/her student ID number. (SS # will not work) Progress reports are updated approximately every 2 to 3 weeks.

Evening Certificate:

Evening certificates are given to each student who achieves a final grade score of 70% or better.

Student Learning Outcomes (SLO's):

Mastery of these SLO objectives is proportional to the students grade in the class.

Upon completion of this course the student will be able to:

- Develop and improve the students manual transmission terminology and to demonstrate knowledge of the operational principals of: the manual transmission and transaxle.
- Build the students critical thinking skills and formulate methods and techniques for diagnosis, overhaul & repair of: Manual transmission and transaxle.

Student Conduct:

Conduct in class is very important and all students are expected to act as an adult college student students. That means being ready to start class on the designated time, being prepared for class by having paper, pencil, Scantrons, safety glasses, tool chits and tools. No social talking during lecture, no cell phones, no immature noise making, no throwing of objects, no plagiarism, no cheating on tests or quizzes and no copying of someone else's work. All students are expected to complete all homework and take home assignments on time.

Cell Phones:

Cell phones must be turned off during class except when the teacher allow you to use them as a calculator.

Support Services:

The library is located in building 5, all student services are located in building 2, Automotive reference material and information can be found on one of the automotive computers. Special website links are setup on our home page for automotive related research.

DSPS Students:

All DSPS students who wish to have additional considerations must identify themselves to the instructor as a DSPS student. In addition if the student needs additional accommodations he/she must obtain an accommodation letter from the DSPS office. The DSPS office is located in building 2 and can be reached at (650) 738-4280.

Attendance:

Attendance is taken with time cards and no student is allowed to punch in or out someone else's time card. Class starts at 6:30 pm. All students must be punched in **before** 6:30 pm and in the classroom ready to go at 6:30 pm. The time clock is the official clock in time unless for some reason it is grossly misadjusted.

To be fair to everyone there are no excused absences or tardies.

Each absence will reduce your attendance percentage by 2.5%.

Each student is allowed up to 2 absences. Upon the 3 absence the student will be given a failing grade.

Special or extenuating circumstances must be approved by the instructor.

Important dates:

- Last day to add the class or drop with a refund -----January 22, 2009
- Last day to drop with eligibility for partial refund-----February 2, 2009
- Final payment due-----February 2, 2009
- Last day to withdraw-----February 26, 2009

Course Outline Summary:

Week one

- Driveline Introduction
- Gears
- Gear Ratio's

Week 2 – 8

- Clutch system principals
- Clutch components and component operation
- Clutch diagnosis
- Manual transmission/transaxle & transfer case operation & components
- Manual transmission/transaxle & transfer case overhaul
- Manual transmission/transaxle & transfer case servicing & diagnosis.
- Final exam on clutches and manual transmission/transaxle. (Written)

Homework Assignments:

Unless otherwise noted or instructed all multiple choice homework questions are to be answered on a Scranton answer sheet using a # 2 pencil. Short answer questions are to be answered on a separate sheet of paper. Make sure to put your name and homework chapter on all assignments.

Manual Drive Lines: Answer the chapter quiz questions that are found in the back of each chapter.

The following assignment due dates are flexible and might be changed through out the semester.

Manual Drive Lines

(These dates are subject to change)

- 2/3/2009 Chapter 4
- 2/10/2009 Chapter 5
- 2/17/2009 Chapter 6
- 2/24/2009 Chapter 7
- 3/3/2009 Chapter 13

Final Exam Date:

(This dates are subject to change)

3/10/2009 Clutch & Manual Trans.
Written