



AUME 072/2088
Basic Auto Mechanics
Course Syllabus
Spring 2020

Course and Section Number: AUME 072/2088

Course Title: Basic Auto Mechanics

Total Credits: 4.0 CEU

Course Start Date: 1/14/2020

Course Ending Date: 5/19/2020

Instructor: Vance Bloom

Office Hours: By Appointment

Prerequisite or Recommended Preparation: None

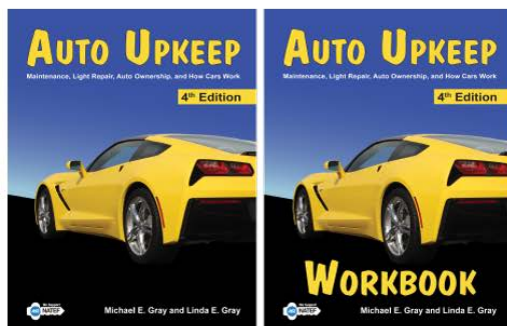
Important Dates to Remember

Jan 13	Regular instruction begins
Jan 13 - 24	Audit Forms accepted
Jan 20	College closed (Martin Luther King Day)
Jan 24	Last day to drop a full-term class* and get a refund (dates vary from short-term classes; refer to Enrollment Services)
Jan 31	Last day to submit paperwork for credit by examination
Feb 2	Last day to drop a full-term class* without a "W" grade (some classes have an earlier date; refer to Enrollment Services)
Feb 2	Last day to add a full-term class with a Late Add Code.
Feb 14-17	College Closed (President's Holidays)
Feb 21	Last day to submit an Appeal for Loss of CA College Promise Grant
Feb 21	Last day to apply for pass/no-pass for a full-term class* (some classes have an earlier date; refer to Enrollment Services)
Mar 2	Cal Grant Application/GPA submission deadline
Mar 6	Last day to apply for Spring 2020 graduation and Certificates of Achievements
Mar 6	Credit by exam must be completed
Mar 23-27	College closed (Spring Break)
Apr 24	Last day to drop a full-term* class with a "W" (some classes have an earlier date; refer to Enrollment Services)
May 14-20	Final Exams
May 21	Graduation
May 22	RTA "GoPass" bus ridership for Spring 2020 ends

Required Textbook:

Auto Upkeep (4th Edition © 2018) – Textbook and Workbook Set

Includes the textbook and workbook. Buy as a set and save an additional \$5.



Paperback Textbook and Paperback Workbook Set

ISBN 978-1-62702-014-5

Retail Price \$75.00

Our Direct Price \$40.00

Add to Cart

Hardcover Textbook and Paperback Workbook Set

ISBN 978-1-62702-017-6

Retail Price \$105.00

Our Direct Price \$58.00

Add to Cart

Other Required Items:

Safety Glasses—MUST BE WORN IN THE SHOP AREA AT ALL TIMES!!—Safety Glasses may be available from the tool room, but it is strongly advised that you buy your own from a local auto supply store or other vendor.

Course Description

Most automobiles and light trucks on the road today are made up of eight basic systems that have to work together for the vehicle to operate properly. The theory and operation of each of these systems will be explored, along with the maintenance procedures required to preserve the life of the vehicle. Emphasis is placed on basic maintenance skills with an eye toward employability. The course will cover the various career paths available to those who choose to work in this area of study.

Student Learning Objectives

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

- Follow safety procedures including personal protection and vehicle protection.
- Complete safety training assigned by the automotive department.
- Identify components of the 8 major systems of the automobile.
- Test components of the 8 major systems of the automobile.
- Discuss the operation of the 8 major systems of the automobile

Welcome Military Veterans!



I would like to express my personal gratitude to our military veterans. I thank you for the sacrifices you made for all of us. Now, as you begin a new phase in your life, I want to stand by you to ensure your continued success. If you have special circumstances (e.g., V.A. appts., upcoming deployments, drill requirements, or disabilities) you are welcome and encouraged to communicate these, in advance if possible, to your instructor.

Student Services Available

1. Academic Support—"Academic support is available for all students through services provided in each campus' Learning Resource Centers. Inquire at each center regarding hours of operation and specific subjects for which tutors are available. In addition, some subject area specialist tutors are available for your individual course."
2. Information Regarding Services for Students with Disabilities—"Mt. San Jacinto College abides by the Americans with Disabilities Act of 1973 that prohibits Federal or State agencies from discriminating against qualified individuals with disabilities. If you have a documented disability that limits a major life activity which may impact your work in this class and for which you receive accommodations, please contact Disabled Student Programs and Services (DSP&S) as soon as possible."

DSPS may be found at the following locations: San

Jacinto Campus—Room #1112

Menifee Valley Campus—Room#1019

Or, visit the MSJC DSPS website at <https://www.msjc.edu/DSPS>

Attendance Policy

*Students will be dropped from the class after the third unexcused absence unless special arrangements are made in advance with the instructor! **Email the instructor with advanced notice if you are unable to attend class.** Attendance is taken at various convenient times during the class at the discretion of the instructor. If you are not present when the roll is called you will be counted as being absent for the entire class session.*

Remember, it is the responsibility of the student to formally drop the class. If you need to withdraw from the class for any reason this can be done **BEFORE** the specified date using the Eagle Advisor system or by completing the "DROP" section of the "Program Change" form available from enrollment services. **IF YOU DO NOT FORMALLY DROP THE CLASS AND YOUR NAME IS STILL ON THE CLASS ROSTER AT THE END OF THE SUMMER SESSION, THE INSTRUCTOR WILL HAVE NO CHOICE BUT TO GIVE THE STUDENT AN "F"**. If you must arrive late for the class, try to slip in as quietly as possible. The same policy applies if you must leave early. **Don't make a habit of doing either one of these things!**

NOTE ON INSTRUCTOR DROPS

Title 5 regulations allow instructors to drop students for non-participation. Examples of non-participation include, but are not limited to:

1. Three or more absences from the lecture or laboratory sessions, or absence exceeding 10% of the total lecture/lab hours of the course. (Approximately 15 hours)
2. Failure to participate in some meaningful way in three or more laboratory sessions.
3. Failure to take more than two assigned quizzes.
4. Failure to take the Midterm exam.
5. Failure to possess current S/P2 Mechanical Safety and Mechanical Pollution Prevention Certifications before the end of week 1.
6. Failure to agree, in writing, to abide by the terms of this syllabus.
7. Repeated violations of either the student dress code or the student behavior policies.

Any of these violations may result in the student being dropped from the class. REMINDER: While the student may be dropped by the instructor, it is the student's responsibility to withdraw from the class before the deadline shown in the important date schedule. If your name remains on the roster at the end of the semester, a grade based on the criteria outlined in this syllabus MUST be assigned.

Shop Safety

The automotive repair industry presents its participants with many dangers; there are a lot of different ways of being hurt or killed. Students are expected to conduct themselves in a safe and professional manner at all times. Students engaging in any unsafe or unprofessional practices will be asked to leave the class for the remainder of the class session and will be counted as being absent. If this happens more than once, the student will be asked to leave the class permanently. In particular, students using equipment they have not been trained to use or who use the equipment in an unsafe or destructive manner will be expelled from the class without exception. 1-2 points will be deducted from each lab excursive for each safety violation. (Such as not wearing safety glasses.) **Students must possess current certifications in Mechanical Safety and Hazardous Materials for Students or they must obtain these certifications from the S/P2 website within the first week of class or they will not be allowed into the shop and no credit will be issued for lab work!**

Electronic Device Policy

Students are welcome to use electronic devices during class that enhance their performance. However, the use of these resources must be “appropriate” for an academic setting. **NO USE OF RECORDING DEVICES WITHOUT WRITTEN APPROVAL OF INSTRUCTOR.**

Appropriate Use of Technology:

- Tape Recordings of Lectures or Discussions
- Note Taking on Laptops or I-pads
- Use of Smartphones to Calendar Events/Assignments
- Use of Devices to Complete Quick Google Searches for Pertinent Information. If students engage in the “inappropriate” use of electronics within the class, then their right to use these devices in the future will be removed.

Inappropriate Use of Technology Within the Classroom:

- Texting Your Friends or Reading Texts While in Class
- Sending or Reading Personal Emails
- Surfing the Net for Non-Class Purposes. For example: Checking in with Facebook or other Social Media, Shopping Online During Class, Reading Online Information not Connected to the Class Materials and Topics, or Paying Your Bills or Checking Financial Accounts.

If these are ongoing issues with numerous students, I will remove the privilege from all students to ensure the necessary standards of an academic setting.

Cheating

Unless it is otherwise specifically permitted by the instructor, all students are expected to do their own work. Cheating, which is sometimes called plagiarism or academic dishonesty, will be reported to the Office of Student Affairs. Students caught cheating will not receive credit for the assignment or exam in question and will not be able to make the work up. Plagiarism, or trying to present someone else’s work as your own will not be tolerated and no credit will be issued for such work.

No Smoking!

“As of August 19, 2013 the use of all tobacco products and smoking is prohibited from all properties owned, leased, or rented by Mt. San Jacinto College. This includes all parking lots, buildings, and grounds. The policy prohibits cigarettes, chewing tobacco, electronic cigarettes or any other tobacco product. Violators may be subject to a \$100 maximum fine.”



Note on Marijuana, including, “Medical Marijuana”: Marijuana use is now legal in the State of California, **BUT** **any** student under the influence of **any** substance which impares judgement **or** interferes with the ability to operate machinery **will not** be allowed in the auto shop.

Work on Student Vehicles

Work performed on a student’s own vehicle is encouraged. Certain qualifying rules apply, however:

1. The student in question must be an active participant in the class—with no outstanding overdue assignments or failure to take quizzes or exams. In addition, anyone performing work in the MSJC auto shop must present current S/P2 Certifications.
2. The job must be related to the course learning objectives.
3. A properly prepared repair order, authorized by the instructor, must be submitted BEFORE any work begins. The MSJC shop disclaimer must be signed by the student, and the repair order must include a labor time estimate for the work to be performed.

Grading Policy

Students will be given a letter grade at the end of the term that is based on the number of points earned for coursework submitted during the term. The number of points possible will be determined according to the following formula:

Chapter Homework and Quizzes-----250 Points
Laboratory Exercises-----350 Points
Class Project-----100 Points
Quiz-----100 Points
Exams-----100 Points

(All Students Must take the Final or receive a “D” for the course.

Final letter grades will be awarded according the following standard:

- | | |
|------------------------------|---|
| 1. 900--810 points----- | A |
| 2. 809--720 points----- | B |
| 3. 719--630 points----- | C |
| 4. 629--540 points----- | D |
| 5. 540 points and below----- | F |

Late Work

Assignments turned in after the due date will not be accepted unless previous arrangements have been made with the instructor. Chapter quizzes must be made up within one week after they are originally given. An open lab will usually be provided for the purpose of making up any lab work not completed for some legitimate reason. **ALL WORK MUST BE COMPLETED AND TURNED IN BEFORE THE LAST DAY OF THE SEMESTER OR IT WILL NOT BE ACCEPTED AND NO CREDIT WILL BE GIVEN FOR IT!!!!**

Student Behavior Policy

1. No unnecessary talking in class.
2. No sleeping in class.
3. No open-toed shoes or sandals allowed.
4. Long pants only—NO SHORT PANTS!!! (This is a rule imposed by the college)
5. No tank tops.

Course Schedule

Schedule is subject to change depending on the needs of the individual class

Week #	Basic Area Covered	Textbook Assignment and	Lab Assignment
Week 1: Course Introduction and How Cars Work (1/14-1/16)	Syllabus Review, Auto Shop Orientation, Using Floor Jacks and Lifts	Chapter 1 Study Questions for Chapter 1 (Workbook)	Car Identification Activity Owner's Manual Activity
Week 2: Safety Around the Automobile (1/21-1/23)	- Identify Auto Shop Hazards - Interpret Safety Data Sheets (SDS) - Personal Protective Equipment - Safe Use of	Chapter 5 Study Questions for Chapter 5 (Workbook)	Automotive Safety Activity Safety Data Sheet Activity Personal Protective Equipment and Fire Safety Activity
Week 3: Automotive Tools and Equipment (1/28-1/30)	Recognize Basic Tools Use Tools Properly Navigate an Online Service Manual	Chapter 6 Study Questions for Chapter 6 (Workbook)	Tools and Equipment Activity Service Manual Activity
Week 4: The Automotive Engine (A1) (2/4-2/6)	Four-Cycle Engine Operation Selection of Proper Engine Oil and Filter The Oil and Filter Change	Chapters 1 and 10 Study Questions for Chapter 10 (Workbook)	Compression Check Activity Oil and Filter Change Activity
Week 5: The Drivetrain (A2 & A3) (2/11-2/13)	Purpose of the Drivetrain Drivetrain Components Inspect Drivetrain Systems	Chapter 16 Study Questions for Chapter 16 (Workbook)	Drivetrain Activity

Week 6: Steering and Suspension (A4) (2/18-2/20)	Purpose and Components of the Suspension System Purpose and Components of the Steering System Tire Identification and Service	Chapter 14 Study Questions for Chapter 14 (Workbook)	Suspension and Steering Activity Tire Rotation Activity
Week 7: The Brake System (A5) (2/25-2/27)	Purpose and Principles of the Braking System Braking System Type and Component Identification Brake System Component Inspections	Chapter 15 Study Questions for Chapter 15 (Workbook)	Brake Inspection Activity
Week 8: Automotive Electrical and Electronics (A6) (3/3-3/5)	Electricity and Electrical Circuits Electrical Diagrams Use of Electrical Test Equipment	Chapter 9 Study Questions for Chapter 9 (Workbook)	Ohm's Law Activity Wiring Diagram Activity
Week 9: The Automotive Electrical System (A6) (3/10-3/12)	The Accessory Drive Belt System (ABDS) Starting and Charging System Components and Testing Battery Types, Ratings, Inspection and Maintenance	Chapter 9 Study Questions for Chapter 9 (Workbook)	Battery Activity Charging System Activity Starting System Activity
Week 10: Mid-Term Exam The Engine Cooling System (A7) (3/17-3/19)	Cooling System Component Identification and Operation Coolant Properties, Selection and Service Charge-Air Cooler Operation	Chapter 12 Study Questions for Chapter 12 (Workbook)	Cooling System Activity
Week 11: The HVAC System (A7) (3/31-4/2)	Heater and Air Conditioner System Operation Cabin Air Filter Inspection	Chapter 12 Study Questions for Chapter 12 (Workbook)	Air Conditioning Activity Cabin Air Filter Activity

Week 12: The Fuel System (A8) (4/7-4/9)	Fuel System Component Identification and Service Properties of Gasoline and Diesel Fuels Fuel Economy and Ways to Improve It	Chapter 11 Study Questions for Chapter 11 (Workbook)	Fuel System Component Identification Activity Fuel System Maintenance Activity
Week 13: The Ignition System (A8) (4/14-4/16)	Ignition System Types, Components and Operating Principles Interference and Non-Interference Engine Identification Ignition System Testing and Inspections	Chapter 13 Study Questions for Chapter 13 (Workbook)	Ignition System Activity
Week 14: The Exhaust and Emissions Systems (A8) (4/21-4/23)	Exhaust and Emission System Components and Principles of Operation Exhaust and Emission System Inspections	Chapter 17 Study Questions for Chapter 17 (Workbook)	Exhaust and Emissions Activity
Week 15: Alternative Fuels and Propulsion Designs (4/28-4/30)	Design Differences in Propulsion Types Propulsion Type Comparisons Car of the Future Predictions	Chapter 18 Study Questions for Chapter 18 (Workbook)	Payback Period Activity Future of Transportation Activity
Week 16: Automotive Accessories (5/5-5/7)	Automotive Accessory Components and Principles of Operation Cost of Automotive Accessory Systems	Chapter 19 Study Questions for Chapter 19 (Workbook)	Automotive Accessories Activity
Week 17: Common Problems and Roadside Emergencies (5/12-5/14)	Common Problem Testing and Repair Procedures Emergency Preparation Jump starting Change a Flat Tire	Chapter 20 Study Questions for Chapter 20 (Workbook)	Changing a Flat Tire Activity Jump-Starting Activity Lighting Activity Replacing Wiper Blade Activity OBD II Activity

Week 18: Final Exam Week Written Final is on Tuesday, 5/19/2020 @ 6:00	None	None	None
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Student Syllabus Agreement

I the undersigned do hereby agree to abide by all of the rules and regulations stipulated by the AUME 072/2096 course syllabus for the Spring 2020 Semester.

Signed:_____

Date:_____

**Please review the syllabus above and return this form to your instructor by 1/30/2020.
Failure to do this may result in the student being dropped from the class.**