

Las Positas College
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Course Outline for NAUT ASMC

AUTOMOTIVE SUMMER CAMP

Effective: Summer 2021

I. CATALOG DESCRIPTION:
 NAUT ASMC — Noncredit

Have you ever wanted to know more about your car but do not have time to take an 18-week course? Have you ever wanted to change your own oil? Learn what the cryptic code on the tire means? Learn general knowledge about cars? This is the class for you! From maintenance to oil changes to tires to smog to hybrids to jump starting. Speaking of jump starting, let's start! There is a lab section that follows the lecture section for students to gain hands-on experience.

Grading Methods:

Pass/No Pass

Discipline:

- Automotive Technology

Noncredit Category

I - Short-Term Vocational

	MIN	MAX
Total Noncredit Hours:	17.50	28.00

II. PREREQUISITE AND/OR ADVISORY SKILLS:

III. MEASURABLE OBJECTIVES:

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

- A. Describe the basics of an oil change
- B. Classify different types of tire information
- C. Read and interpret tire changing instructions
- D. Apply a vehicles maintenance schedule to their own vehicle
- E. Demonstrate proper cautions under the vehicles hood
- F. Appraise safety hazards of a hybrid vehicle.
- G. Estimate vehicle repair costs.
- H. Value a vehicles smog check and environmental hazards.
 - I. List the steps to jump start a vehicle
- J. Recognize a vehicles instrument panel lamps.
- K. Inspect a vehicles wiper blades.
- L. Interpret a vehicles VIN.
- M. Contrast vehicle modifications and there costs.

IV. CONTENT:

- A. Oil Changes
 - 1. Interval
 - 2. Correct oil
 - 3. Additives
- B. Tire Safety
 - 1. Reading Date Code
 - 2. Reading Tire Size
 - 3. TPC Specs
 - 4. Tire Placard
 - 5. Tires
 - a. Tread Depth
 - b. Air Pressure
- C. Change a Spare Tire
 - 1. Where is the stuff?
 - 2. Spare tire changing, a how to.
 - 3. Jack placement
 - 4. Breaking loose the lug nuts
 - 5. Removing Tire
 - 6. New tire and lug nuts
 - 7. Tightening
 - 8. Lower tightening
- D. Checking Fluids/Filters/Maintenance
 - 1. Maintenance Schedule
 - a. Where is it?

2. Oil
3. Transmission
4. Brake
5. Clutch
6. Coolant/Antifreeze
7. Power Steering
8. Air filter
9. Cabin Air filter
10. Tires
 - a. Tread Depth
 - b. Air Pressure
- E. What is under the car's hood?
 1. Cautions
 2. Engine
 3. Belts/Hoses
 4. Fluids
 5. Hybrid Safety
- F. Hybrids
 1. Cautions
 2. Charging
 3. Series
 4. Parallel
 5. Electric
- G. Taking your car in for Service
 1. Labor Rates
 - a. Shopkey Examples
 2. Estimates
 3. Flat rate/hourly
 4. Warranties
 - a. Magnueson/Moss Act
- H. Smog
 1. What is it?
 2. 8 Year exemption
 3. Dyno Smog
 4. OBD Smog
 5. Fail Smog
 - a. Options
 - b. Cost limit
 6. Referee
 - a. Waiver
 - b. Noise Tickets
 - c. Smog Equipment Tickets
- I. How to Jump Start
 1. Hook up
 2. Remove
- J. Instrument panel lights/gauges
 1. Color. Amber/Red, Green/Blue
 2. Check Engine
 3. TPMS
 4. Oil
 5. Coolant
 6. Brakes/ABS
 7. Suspension
 8. Airbag
- K. How to inspect/install wipers and fill washer fluid
- L. How to read the VIN
 1. Locations
 2. 8th digit
 3. 10th digit
- M. Modifications
 1. Engine
 2. Brakes
 3. Suspension
 4. Tires
 5. Body/Lighting

V. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Audio-visual Activity** - Audio and Visual Material PowerPoint presentations
- C. **Discussion** -

VI. TYPICAL ASSIGNMENTS:

- A. Lecture
 1. Lecture on Oil Changes.

VII. EVALUATION:

Methods/Frequency

- A. Quizzes
 - End of sections
- B. Class Participation
 - Every meeting

VIII. TYPICAL TEXTS:

1. Shopkey.com, Snap-on, (Current (website)).
2. Alldata.com, Alldata, (Current (website)).

IX. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Safety glasses