



**Palm Springs Unified School District
Secondary Course Description**

District Office Use Only

Cabinet/BOE Approval Date: Auto 010 Intro Automotive Technology
 Transcript Title(s)/Abbreviation: 5245KS1 & 5245KS2 Course Code(s)/Number(s): March 28, 2017

Section 1: Course Content

1. Course Title: Auto 010—Introduction to Automotive Technology
 2. CALPADS Code: 5669 Date submitted to Curriculum Advisory: 2/15/2017
 3. Re-write? No Yes (If "Yes," what is the District Course Code)
 4. Is this a Dual Enrollment course? No Yes (If so content cannot be changed)
 5. Subject area: Career Technical Education (CTE) 12. Career Pathway Relationship
 Is this course an Industry and Career Pathway-related course?
 No Yes
 If "Yes," which Industry? Transportation
 6. PSUSD Department: Vocational Which Pathway? Systems Diagnosis and Repair
 7. Grade: 11 or 12 What sequence level? 19-Advanced
 8. Unit Value: 10 PSUSD Credits (one year/two semesters)
 9. PSUSD weighted GPA? No Yes
 10. Is this an "online" learning course? No Yes
 If "Yes," list the online provider: 13. Is this course an Academy-related Course?
 No Yes
 If "Yes," which Academy? RACE Academy
 11. Alternative Education Program course?
 No Yes

School and District Information

School Information
 14. School Name: Rancho Mirage High School School District: Palm Springs Unified School District
 City and State: Palm Springs, California District Web Site: http://www.psusd.us

School Course List Contact Information (Name of AP of Curriculum or Principal)
 15. Name: Teresa Haga Position/Title: Assistant Principal
 Email: thaga@psusd.us Phone #: 760-202-6455 Ext: _____

Teacher Contact Information (Name of teacher/administrator who authored this course)
 16. Name: David Holland Position/Title: Teacher
 Email: thaga@psusd.us Phone #: 760-202-6455 Ext: _____

17. Course Overview [Provide a brief summary/snapshot (3-5 sentences) of the course's content]:
 This course provides an overview of the major components and systems found on modern automobiles. The course includes: an overview of the automotive industry, shop safety, hand tools usage, basic theory of major automobile systems and basic vehicle maintenance and service. This class provides and overview of automotive theory and service procedures including lecture/discussion and hands-on experience understanding and servicing fundamental automotive components and systems.

18. Texts and Supplemental Instructional Materials
 Texts: Basic Auto Service & Systems CM Edition/Year: _____
 Author: _____ Primary Textbook: No Yes
 Publisher: _____ Website/URL: _____
 Supplemental Materials: _____

19. COURSE CONTENT:
 For each unit of the course, provide:



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1. A brief description (5-10 sentences) of topics to be addressed that demonstrates the critical thinking, depth and progression of content covered.
2. A brief summary (2-4 sentences) of at least one assignment that explains what a student produces, how the student completes the assignment and what the student learns.

Course Content and Scope:

Lecture:

- 1) Orientation, vehicle service information
- 2) Introduction to the automobile industry
- 3) Shop safety and environmental protection
- 4) Fasteners and gaskets
- 5) Tools and shop equipment
- 6) Service data
- 7) Engine overview: operation, construction, lubrication, cooling, exhaust
- 8) Fuel and ignition systems overview
- 9) Electrical system overview
- 10) Emission control system overview
- 11) Transmission overview
- 12) Braking system overview
- 13) Steering and suspension system overview
- 14) Air conditioning and heating systems
- 15) Preventative maintenance
- 16) Chrysler web-based training modules

Lab:

Demonstrate understanding of the following practices and systems through a series of hands-on activities:

- 1) Properly complete Repair Order including research of various service information, TSBs, and time studies, as well as explaining the repair order to a customer.
- 2) Shop safety, & Environmental Protection: Instructor led demonstrations, demonstration of proficiency with lifting a vehicle, proper handling of spills, properly disposing of waste oils, proper use of tools and equipment.
- 3) Fasteners and gaskets: demonstration of proper torque and gasket prep with servicing tires and wheels as well as oil changes.
- 4) Identification of general operating systems.
- 5) Engine overview. Identify various engine systems and describe the function and operation of key engine related parts.
- 6) Fuel and ignition systems overview: Read codes using scan tool. Perform maintenance of filters, PCV valve and spark plugs.
- 7) Electrical system overview: Test Battery. Perform basic maintenance of belts and cables. Remove and replace battery.
- 8) Emission control system overview: Identify major emission system components, their function and operation. Perform basic maintenance.
- 9) Transmission overview: Perform basic inspection, check and fill fluids, observe typical transmission service as demonstrated by instructor.
- 10) Braking system overview: Perform brake system inspection, service and light repair.
- 11) Steering and suspension system overview: inspect system for damaged or worn parts. Perform maintenance and service of wearable components.
- 12) Basic to intermediate preventative maintenance.

Course Student Learning Outcomes:

- 1) Demonstrate knowledge of shop safety.
- 2) Demonstrate understanding of fundamental vehicle systems.
- 3) Perform a detailed vehicle inspection and note required basic vehicle services required.
- 4) Display teamwork.
- 5) Properly complete a vehicle repair order.
- 6) Research basic vehicle service information.
- 7) Identify and utilize basic service hand tools and equipment.

Course Objectives: *Upon completion of this course, students will be able to:*



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Upon satisfactory completion of the course, in a timely manner to industry standards, students will be able to:

- a) Describe shop safety practices and proper procedures regarding handling hazardous material.
- b) Identify basic automotive tools and equipment.
- c) Perform chassis lubrication, and change oil and filter.
- d) Demonstrate tire rotation.
- e) Locate applicable vehicle service specifications and procedures using the latest online service information.
- f) Inspect disc and drum brakes.
- g) Properly complete a repair order including all pertinent information and compliant, cause and correction.
- h) Properly position and lift a vehicle using a floor jack and jack stands and a vehicle hoist.
- i) Identify and describe the purpose of the following components and systems: engine, transmission, suspension, braking system, fuel system, ignition system, electrical system and steering system.
- j) Describe the 5-step troubleshooting process.
- k) Perform a detailed vehicle inspection.
- l) Verify proper fill and type for all fluids on the automobile.
- m) Properly connect a digital multimeter and read volts, amps and ohms on a basic electrical circuit.
- n) Properly prepare a vehicle for service.
- o) Maintain a clean working environment.
- p) Perform a compression test.
- q) Locate and interpret key vehicle identification information.
- r) Test drive a vehicle to verify a concern and the repair.
- s) Display team work.

Methods of Instruction:

- a) Collaborative/Team
- b) Discussion
- c) Distance education
- d) Laboratory
- e) Observation
- f) Technology-based instruction

Section 2: Course Information

1. Was this course "Previously Approved" by UC? No Yes

If "No," proceed to the Course Description Section (Section 4).

If "Yes," indicate which category applies:

2. Is this course modeled after an UC-approved course from another high school outside of our district? No Yes

If "Yes," list which school and the school's ATP code:

Exact Course Title:

3. Is this course modeled after an identical course approved by UC for the current year at another high school in PSUSD:

No Yes (If "Yes," what school?)

Exact Course Title:

4. Is this course being reinstated after removal within 3 years: No Yes

If "Yes," what year was the course removed from the list?

Exact Course Title:

5. Has this course been provided program status, is not an online course, and is it listed below? No Yes

If "Yes," Program Status:

6. If "Advanced Placement," has it been authorized by the College Board through the AP audit process?

No Yes In Progress If "In Progress," date submitted to AP:

Exact Program Course Title:

7(a). Is this course provided by one of the UC-approved online curriculum providers listed in #8?

No Yes

7(b). Have you signed the appropriate partnership agreement with the provider regarding methods of delivery and instruction?

No Yes

8. If the answer to either 7(a) or (b) is "No," UC will not approve this course. If "Yes" to both 7(a) and (b), then select the appropriate option from the Online Provider List below:



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Section 3: Course Description

1. Seeking "Honors" Distinction:
2. Subject Area:

Category:

Section 4: Course Attributes

1. Is this course classified as a Career Technical Education Course?

No Yes

2. Is this course classified as a Career Technical Education Course?

Industry: Transportation Career Pathway: Systems Diagnosis and Repair