RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

Santiago Canyon College
8045 E. Chapman Ave.
Orange, CA 92869

Santa Ana College
1530 W. 17th Street
Santa Ana, CA 92706

ARTICULATION AGREEMENT

College: ~~Santa Ana College~~	**Secondary Partner:** ~~Aliso Niguel High School/Capistrano~~ Laguna ROP, Aliso Viejo, CA
Contact: ~~Glen Hammonds/ John Kalko~~	**Address:** ~~Capistrano Laguna ROP, 31522 El Camino Real~~ San Juan Capistrano
Phone & Fax #: ~~714 564-6800/714 564-6629~~	**Contact:** ~~Doug Mack / Rita Decker~~
Fax# 714 564-6158	**Phone & Fax #:** ~~949 496-3118~~
	Fax# 949 496-1850
RSCCD Course	**High School / ROP Course**
Auto Tech 006, Maintenance	**Auto Technology, Auto Repair 006**

Articulation Agreement Effective Dates

20012 - 2013	2013 - 2014	2014 - 2015
Glen Hammonds **Signature, RSCCD Instructor** Glen Hammonds **Print Name** 7-10-13 **Date**	Glen Hammonds **Signature, RSCCD Instructor** Glen Hammonds **Print Name** 7-10-13 **Date**	**Signature, RSCCD Instructor** Glen Hammonds **Print Name** **Date**
Simon B. Hoffman **Signature, RSCCD Division Dean** Simon B. Hoffman **Print Name** 7/18/13 **Date**	Simon B. Hoffman **Signature, RSCCD Division Dean** Simon B. Hoffman **Print Name** 7/18/13 **Date**	**Signature, RSCCD Division Dean** Simon B. Hoffman **Print Name** **Date**
Signature, HS/ROP Instructor Doug Mack **Print Name** 6-14-13 **Date**	**Signature, HS/ROP Instructor** Doug Mack **Print Name** 6-14-13 **Date**	**Signature, HS/ROP Instructor** Doug Mack **Print Name** **Date**
Rita Decker **Signature, HS/ROP Administrator** Rita Decker **Print Name** 6/06/13 **Date**	Rita Decker **Signature, HS/ROP Administrator** Rita Decker **Print Name** 6/06/13 **Date**	**Signature, HS/ROP Administrator** Rita Decker **Print Name** **Date**

NAME OF STATEWIDE ACADEMIC SENATE TEMPLATE FOLLOWS:	
#	TITLE:

1 of 3College Course Title Course # AUTO 006	HS/ROP Course Title Course #
General Course Description Auto 006: Introduces basic maintenance procedures in the areas of engines, drive lines, and electrical systems. This course is recommended for consumers and students interested in entering the automotive repair field. Students furnish hand tools and safety equipment.	General Course Description Auto 006:
College Units: 4 units	HS/ROP Hours:
College Prerequisite(s): None	HS/ROP Prerequisite(s):
College Advisories/Recommendations:	HS/ROP Advisories/Recommendations:

REQUIRED CONTENT FOR ARTICULATION

COURSE INTRODUCTION: 3 LEC 4 LAB HOURS
- SHOP SAFETY
- BASIC TOOL USE

Present course overview, basic tool lists. Cover shop safety and give safety test.

GENERAL SERVICE AND INSPECTION: 9 LEC 12 LAB HOURS
- BASIC UNDER CAR SERVICES
- TIRE AND WHEEL SERVICE

Learn under hood inspection of fluid levels, jack and hoist operation; chassis Lubrication; engine oil and filter change; tire rotation, inspection, repair, and wheel balance.

ELECTRICAL SERVICE: 12 LEC 16 LAB HOURS
- BATTERY SERVICE
- BASIC ELECTRICAL SYSTEM SERVICE
- STARTING SYSTEM SERVICE
- CHARGING SYSTEM SERVICE

Learn battery service and replacement; basic lighting circuit testing: fuse, flasher, and bulb replacement; test cranking and charging voltage; replace starter and alternator.

ENGINE SERVICE: 12 LEC 16 LAB HOURS
- FUEL SYSTEM SERVICE
- IGNITION SERVICE SECONDARY
- IGNITION SERVICE PRIMARY
- COOLING SYSTEM SERVICE

Learn 4 stroke cycle; service of air and fuel filter, P.C.V. and evaporative control system; compression testing, spark plug, and wire service; distributor service, primary and secondary voltage testing; cooling system service and testing; thermostat and hose replacement.

CHASSIS SERVICE: 12 LEC 16 LAB HOURS
- WHEEL BEARING SERVICE
- BRAKE SYSTEM SERVICE
- SUSPENSION AND STEERING SERVICE

Learn wheel bearing lubrication, adjustment and replacement; inspection; adjustment, shoe and pad replacement; suspension and steering inspection, shock replacement.

INITIALS

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COMPETENCIES AND SKILL REQUIREMENTS REQUIRED FOR ARTICULATION

(Use additional pages as necessary) Where appropriate, please incorporate standards being used (e.g. CTE standards). At the conclusion of this course, the student should be able to:

1. Comply with safety, environmental regulations and standards.
2. Explain the operation of vehicle systems.
3. Identify and describe the operation of related vehicle components.
4. Identify and properly use tools and equipment.
5. Perform basic maintenance and service procedures according to industry standards.
6. Access service information and specifications using electronic and printed sources.
7. Recognize the various career opportunities in the automotive industries.
8. Recognize consumer rights and responsibilities.

MEASUREMENT METHODS

(Includes any industry certification or licensure):

Hands-on performance evaluations by instructor
Written Tests
Written Quizzes
Group presentations

TEXTBOOKS OR OTHER SUPPORT MATERIALS (Including Software):

College	High School / ROP
Auto 006 **Halderman, James D. Automotive Technology- Principles, Diagnosis and Service. 4th ed. Prentice Hall, 2012.** **ISBN: 013-254261-7.** **Wilkes. Maintenance Lab Assignments #0-7422-0547-9**	

COMMENTS:

College	High School / ROP

INITIALS

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Rancho Santiago Community College District

(Santa Ana College & Santiago Canyon College)

Articulation Agreement for High School/ROP Course(s)

Automotive Department of Rancho Santiago Community College District agrees to accept the high school/ROP course(s) identified below in lieu of the college course(s) listed, and agrees to award the number of college units indicated (or to award advanced placement) upon successful completion of the high school/ROP course and any attendant terms/conditions agreed to by the two institutions.

Agreement with: Doug Mack (Aliso Niguel High School, Aliso Viejo, CA)

High School/ROP Capistrano Laguna ROP
31522 El Camino Real, San Juan Ca

RSCCD Course(s)	High School/ROP Course(s)	Units
Auto Tech 006 Maintenance	Automotive Technology -	4
or Auto Tech 022 Essentials	Auto Repair	3

OR

Specific Terms/Conditions: (advanced placement, grade requirements - *cannot stipulate a grade less than a C*, testing requirements etc.)

Articulation Agreement Effective Dates (Academic Years):

☐ 2007-2008 ☐ 2008-2009 ☒ ~~2009-2010~~ 2010-2011

Approved:

Signature, RSCCD Instructor 714 564-6664 *Date* 3/4/09

Signature, RSCCD Division Dean *Date*

Signature, High School/ROP Instructor *Date* 3-4-09

Signature, High School/ROP Administrator *Date* 3/4/09
Rita J. Decker

Consumer Auto

Description: This course is designed for the owner / operator of a car. Basic auto construction, terminology, engine operation, fundamental systems, hand and power tools, shop safety, and vehicle maintenance are covered. Students will experience learning in both the classroom and automotive lab. While classroom vehicles are available for hands-on exercises, some students enjoy bringing their own vehicles in for service / repair experience (by parent permission only).

Please note that the Constitution of the State of California requires that we provide a public education to you free of charge. Your right to a free education is for all school/educational activities, whether curricular or extracurricular, and whether you get a grade for the activity or class. Subject to certain exceptions, your right to a free public education means that we cannot require you or your family to purchase materials, supplies, equipment or uniforms for any school activity, nor can we require you or your family to pay security deposits for access, participation, materials, or equipment.

Textbook: "Modern Automotive Technology" by James E. Duffy

Calendar of Topics and Assignments *the schedule is tentative and subject to change depending upon the progress of the class. Assignments may be added, deleted, or modified.*

9/7-9 Introduction, permission slips, grading procedure, class rules and expectations.
Body/Power train components terminology

9/12-16 Eng./ power train function and layouts, "How a Car is Built ", **ASE qu., any 10 review**

9/19-23 Engine Parts Terminology and "The Four Stroke Cycle" **Chapter 11 and 12**

9/26-30 Lubrication System and Motor Oils, Performing a Lube, oil, filter Service **Ch. 10, 41.**

10/3 – 10/7 "Hand Tools" lecture/demonstration, **complete handout, tool quiz.**

10/10-14 Safety: Scenarios, shop tour, demonstrations, Safety Video, Safety Test (95 pts, multiple choice). **Students correct safety errors/resubmit for credit, sign up cleanup jobs**

10/17-22 "Writing Work Orders" and the "Flat-Rate Labor" billing system. **Shop activities are documented for practical credit.** Various automotive service and repair tasks in the lab.

10/ 24-28 "Using the Mitchell on Demand 5 reference system for repair instructions/specifications". Combined student lab projects **1 ½ hour Work Order due**

10.31-11/4 "The Cooling Sys." lecture, lab demo; "Changing Coolant and Thermostat". **Ch. 39. Questions.**

11/7-10 "The Ignition System" purpose, function, service. Replacing spark plugs and testing coils and wires. Chapter 35 questions. **Students gap, and replace spark plugs for credit.**

11/14-18 "Tires and Tire Service" Interpreting tire sizes and quality codes, tire rotation, performing patch and plug service, wheel balancing. **Student pairs balance a wheel for credit.**

11/28-12/2 Fuel Systems: Automotive Fuels, Gasoline and Diesel Combustion (Ch. 20)
Carburetion, the Seven Circuits of a Carburetor" adjustment tips, **Ch 20 questions**

12/5-9 Fuel Systems: "Gasoline Injection Fundamentals" parts terminology, parts ID, function and overview. **Ch. 22 questions,** combined student vehicle projects in lab.

12/12-16 "Performing a brake inspection" Combined student projects in lab. **1 ½ hour Work Order documenting lab work.**

1/2-6 "Charging System and Battery Checks" lecture/demos. Combined student projects

1/9-13 " Checking fuses and Changing Light bulbs". Combined student projects in lab.

Other topics "What not to do when cleaning your car" Detailing and Buffing

Final Exam Multiple Choice covering some of the above topics