

# CERTIFICATE OF ACHIEVEMENT IN ENGINEERING AND SUSPENSION

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A minimum 60.0 semester hours of college credit are required for this certificate. Only courses numbered 1000 or above may be applied toward the certificate. Courses listed below have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or advisor for more information.

**3** REQUIRED COURSES: C-110 / C-111 / C-112 / C-113 / C-114 / C-115 / C-116 / C-117 / C-118 / C-119 / C-120 / C-121 / C-122 / C-123 / C-124 / C-125 / C-126 / C-127 / C-128 / C-129 / C-130 / C-131 / C-132 / C-133 / C-134 / C-135 / C-136 / C-137 / C-138 / C-139 / C-140 / C-141 / C-142 / C-143 / C-144 / C-145 / C-146 / C-147 / C-148 / C-149 / C-150 / C-151 / C-152 / C-153 / C-154 / C-155 / C-156 / C-157 / C-158 / C-159 / C-160 / C-161 / C-162 / C-163 / C-164 / C-165 / C-166 / C-167 / C-168 / C-169 / C-170 / C-171 / C-172 / C-173 / C-174 / C-175 / C-176 / C-177 / C-178 / C-179 / C-180 / C-181 / C-182 / C-183 / C-184 / C-185 / C-186 / C-187 / C-188 / C-189 / C-190 / C-191 / C-192 / C-193 / C-194 / C-195 / C-196 / C-197 / C-198 / C-199 / C-200 / C-201 / C-202 / C-203 / C-204 / C-205 / C-206 / C-207 / C-208 / C-209 / C-210 / C-211 / C-212 / C-213 / C-214 / C-215 / C-216 / C-217 / C-218 / C-219 / C-220 / C-221 / C-222 / C-223 / C-224 / C-225 / C-226 / C-227 / C-228 / C-229 / C-230 / C-231 / C-232 / C-233 / C-234 / C-235 / C-236 / C-237 / C-238 / C-239 / C-240 / C-241 / C-242 / C-243 / C-244 / C-245 / C-246 / C-247 / C-248 / C-249 / C-250 / C-251 / C-252 / C-253 / C-254 / C-255 / C-256 / C-257 / C-258 / C-259 / C-260 / C-261 / C-262 / C-263 / C-264 / C-265 / C-266 / C-267 / C-268 / C-269 / C-270 / C-271 / C-272 / C-273 / C-274 / C-275 / C-276 / C-277 / C-278 / C-279 / C-280 / C-281 / C-282 / C-283 / C-284 / C-285 / C-286 / C-287 / C-288 / C-289 / C-290 / C-291 / C-292 / C-293 / C-294 / C-295 / C-296 / C-297 / C-298 / C-299 / C-300 / C-301 / C-302 / C-303 / C-304 / C-305 / C-306 / C-307 / C-308 / C-309 / C-310 / C-311 / C-312 / C-313 / C-314 / C-315 / C-316 / C-317 / C-318 / C-319 / C-320 / C-321 / C-322 / C-323 / C-324 / C-325 / C-326 / C-327 / C-328 / C-329 / C-330 / C-331 / C-332 / C-333 / C-334 / C-335 / C-336 / C-337 / C-338 / C-339 / C-340 / C-341 / C-342 / C-343 / C-344 / C-345 / C-346 / C-347 / C-348 / C-349 / C-350 / C-351 / C-352 / C-353 / C-354 / C-355 / C-356 / 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C-732 / C-733 / C-734 / C-735 / C-736 / C-737 / C-738 / C-739 / C-740 / C-741 / C-742 / C-743 / C-744 / C-745 / C-746 / C-747 / C-748 / C-749 / C-750 / C-751 / C-752 / C-753 / C-754 / C-755 / C-756 / C-757 / C-758 / C-759 / C-760 / C-761 / C-762 / C-763 / C-764 / C-765 / C-766 / C-767 / C-768 / C-769 / C-770 / C-771 / C-772 / C-773 / C-774 / C-775 / C-776 / C-777 / C-778 / C-779 / C-780 / C-781 / C-782 / C-783 / C-784 / C-785 / C-786 / C-787 / C-788 / C-789 / C-790 / C-791 / C-792 / C-793 / C-794 / C-795 / C-796 / C-797 / C-798 / C-799 / C-800 / C-801 / C-802 / C-803 / C-804 / C-805 / C-806 / C-807 / C-808 / C-809 / C-810 / C-811 / C-812 / C-813 / C-814 / C-815 / C-816 / C-817 / C-818 / C-819 / C-820 / C-821 / C-822 / C-823 / C-824 / C-825 / C-826 / C-827 / C-828 / C-829 / C-830 / C-831 / C-832 / C-833 / C-834 / C-835 / C-836 / C-837 / C-838 / C-839 / C-840 / C-841 / C-842 / C-843 / C-844 / C-845 / C-846 / C-847 / C-848 / C-849 / C-850 / C-851 / C-852 / C-853 / C-854 / C-855 / C-856 / 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C-982 / C-983 / C-984 / C-985 / C-986 / C-987 / C-988 / C-989 / C-990 / C-991 / C-992 / C-993 / C-994 / C-995 / C-996 / C-997 / C-998 / C-999 / C-1000

CERTIFICATE OF ACHIEVEMENT<sup>3</sup> DRIVE TRAIN

# CERTIFICATE OF ACHIEVEMENT IN ELECTRICAL SYSTEMS

A minimum of 60.0 semester hours with a grade of "C" or better must be maintained in applicable units. Only courses numbered 100 or below apply toward the Associate Degree. Courses listed below may have additional requirements.

<b>3</b>	Required Major Course	AAT 110	AIR CONDITIONING	4
<b>3</b>	Required Major Course	AAT 120	ELECTRICAL AND ELECTRONIC SYSTEMS	4
<b>3</b>	Required Major Course	AAT 121	ELECTRICAL SYSTEMS AND COMPONENTS	4
	Required Major Course			
	Required Major Course			
	Required Major Course			
<b>3</b>	RESTRICTED MAJOR ELECTIVES	Course No.	Course Title	Units
	Restricted Major Elective			
	Restricted Major Elective			
	Restricted Major Elective			
			SUBTOTAL UNITS (440)	
	Required Course			
			General Education	
			Advanced Automotive Technology	12
			TOTAL UNITS (102)	

\*Eligibility for ENA fulfills this requirement

\*\*Eligibility for MAT3 or completion of any math for which MAT 121 is a prerequisite with a grade of C or better fulfills this requirement.

**TRANSFER STUDENTS** Completing the SA degree does not meet all the requirements for transfer. Students planning to transfer to a university should fulfill the four

# CERTIFICATE OF ACHIEVEMENT ENGINE PERFORMANCE

A minimum 60.0 semester hours are required for this certificate. Only courses numbered 100 or above apply toward the certificate. Courses listed below have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog for information.

3 REQUIRED MAJOR COURSES		Course No.	Course Title	Units
3	Required Major Course	AAT 101	ENGINE REPAIR	4
3	Required Major Course	AAT 120	ELECTRICAL AND ELECTRONIC SYSTEMS	4
3	Required Major Course	AAT 121	ELECTRICAL SYSTEM AND COMPONENTS	4
3	Required Major Course	AAT 130	ENGINE PERFORMANCE	4
	Required Major Course			
	Required Major Course			
3 RESTRICTED MAJOR ELECTIVES		Course No.	Course Title	Units
	Restricted Major Elective			
	Restricted Major Elective			
	Restricted Major Elective			
SUBTOTAL UNITS (440)				
3 OTHER REQUIRED COURSES		Course No.	Course Title	Units
	Required Course			
	Required Course			
General Education				
Advanced Automotive Technology				12
TOTAL UNITS (102)				

\*Eligibility for ENA fulfills this requirement

\*\*Eligibility for MAT3 or completion of any math for which MAT 121 is a prerequisite of C or better fulfills this requirement.

**TRANSFER STUDENTS** Completing the certificate does not meet the requirements for transfer. Students planning to transfer to a university should review the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) is available online at [www.asist.org](http://www.asist.org). Please consult with a Hartnell College counselor to review transfer requirements.

# CERTIFICATE OF ACHIEVEMENT IN AUTOMOTIVE INSPECTION, SERVICE, AND MAINTENANCE

A minimum 60.0 semester hours of college credit are required for this certificate. Only courses numbered 100 or above may be applied toward the certificate. Prerequisites listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes or college catalog for further information.

3	REQUIRED MAJOR COURSES	Course No.	Course Title	Units
3	Required Major Course	AUT 251	AUTOMOTIVE INSPECTION, SERVICE AND MAINTENANCE	4
3	Required Major Course	AAT 101	ENGINE REPAIR	4
3	Required Major Course	AAT 120	ELECTRICAL AND ELECTRONIC SYSTEMS	4
	Required Major Course			
	Required Major Course			
	Required Major Course			
3	RESTRICTED MAJOR ELECTIVES	Course No.	Course Title	Units