

CTE Course Description and Standards Crosswalk

- The information on page 1 must be entered directly into the EED CTE Web Portal (log in at <https://www.eed.state.ak.us/tls/cte/perkins> with your district credentials)
- Then this entire form can be submitted by using the *“Click here Provide Supporting Documentation”* link on the Web Portal, or by emailing it to cte-grants@alaska.gov.

Basic CTE Course Information

Course Information	
Course Name	Automotive Service Tech 3
Course Number	11973
Number of High School Credits	1
Sequence or CTEPS (You must first have the Sequence or CTEPS name put into the system.)	Power Mechanics 1, Power Mechanics 2, Introduction to Automotive, Auto Service Tech 1, Auto Service Tech 2
Occupational Standards	
Source of Occupational Standards	National Automotive Technician Education Foundation, http://www.natef.org National Institute for Automotive Service Excellence, http://www.asecert.org
Names/Numbers of Occupational Standards	ASE Certs
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Automotive Service Technician 3 covers training in the diagnosis, repair, and maintenance of braking systems, steering and suspension systems of automobiles. This course is designed to teach the student advanced skills necessary for future employment in the automotive field. Instruction includes career exploration, SkillsUSA and industry visits. A student successful in this course will be able to use technical skills learned in this course to help qualify for nationally recognized ASE (Automotive Service Excellence) certification.
Instructional Topic Headings (please separate each heading by a semi-colon)	Starting System Diagnosis and Repair; Charging System Diagnosis and Repair; Lighting System Diagnosis and Repair; Steering Systems;

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	Front Suspension Diagnosis And Repair; Rear Suspension Diagnosis And Repair; Tire And Wheel Alignment Diagnosis And Repair; Encourage Career and Technical Student Organization (CTSO) Involvement; Personal and Equipment Safety in The Lab; Identification, Use and Care of Tools and Equipment; Investigate Career Opportunities in the Automotive Field; General Hydraulic Brake System Diagnosis and Repair; Drum Brake System Diagnosis and Repair; Disc Brake System Diagnosis and Repair; Power Assist Brake System Diagnosis and Repair; Anti-lock Brake System Diagnosis and Repair
Summative Assessments and Standards	
Technical Skills Assessment	National Institute for Automotive Service Excellence
Course addresses Alaska GLEs	Y
Course addresses Employability Standards	Y
Course addresses Cultural Standards	Y
Course addresses All Aspects of Industry (AAI)	Y
Career & Technical Student Organization (CTSO)	
CTSO associated with this course	SkillsUSA
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	
Postsecondary Institution Name	No
Postsecondary Course Name	
Postsecondary Course Number	
# of Postsecondary Credits	

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Additional CTE Course Information

Author	
Course developed by	Ben Eveland,
Course adapted from	MatSu School District Authors John Egan, Rob Wissler, Ed Clausen, Jack Simpson (MatSu)
Date of last course revision	3-19-2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	N
Certificate, Credential, or License	
Industry-recognized skill certificate, credential, or state license that a student is eligible for upon successful completion of the course?	ASE Certification. National Automotive Technician Education Foundation,
Issuing body/organization/agency	National Institute for Automotive Service Excellence. National Automotive Technician Education Foundation,

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Alaska Reading, Writing, Math, & Science Standards	Alaska Employability Standards	Alaska Cultural Standards	All Aspects of Industry	Formative Assessments
Demonstrate safe laboratory techniques and handling of hazardous materials.	V701 C5.12	M.A; R; W;S.B	A	B	Hlth/Safety	AK EED Safety Manual, SP2.org
Select and operate appropriate hand tools, power tools, and related equipment.	ONET .26	M.Conn M.M; M.P; R; S.B; W	A	B	Tech/Prod	AK EED Safety Manual, SP2.org
Exhibit responsibilities of employment standards including exhibiting dependability and meeting organizationally defined expectations.	EIA I.A.01 I.A.04	M.Conn M.E; R; S.B; W	A B	B	ALL	SkillsUSA

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Identify and Investigate career opportunities and duties of an automotive technician.	ASE NATEF	LA M.Conn S.B	A B	B C	ALL	SkillsUSA AKCIS
Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Alaska Reading, Writing, Math, & Science Standards	Alaska Employability Standards	Alaska Cultural Standards	All Aspects of Industry	Formative Assessments
Diagnose hydraulic brake systems and determine necessary action.	ASE NATEF	R; S.B; W	A		Tech/Prod	ASE A-5 Brakes
Inspect and repair or replace master cylinders, wheel cylinders, and hydraulic lines of the system.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Inspect, test and replace switches, valves, and control devices.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Repair, replace, and adjust disc brake components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech	ASE A-5 Brakes
Diagnose power assist brake systems and determine necessary action.	ASE NATEF	R; S.B; W	A		Tech/Prod	ASE A-5 Brakes
Remove, clean, and inspect power brake components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Repair, replace, and adjust power brake components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Remove, clean, and inspect hydro-boost components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Repair, replace, and adjust hydro-boost components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Check operation of anti-lock braking systems.	ASE NATEF	M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes
Adjust or repair anti-lock brake components to manufacturer's specifications.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-5 Brakes

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Diagnose steering and suspension problems and determine necessary action.	ASE NATEF	R; S.B; W	A		Tech/Prod	ASE A-4 Susp & Steering
Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Alaska Reading, Writing, Math, & Science Standards	Alaska Employability Standards	Alaska Cultural Standards	All Aspects of Industry	Formative Assessments
Clean, remove, and inspect and replace steering linkage components.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Clean and inspect power and manual steering gear boxes.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Repair, replace, and adjust wheel spindles and bearings.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Diagnose conventional and electronic rear suspension systems and determine necessary action.	ASE NATEF	M.M; S.B; W	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and replace rear shock absorbers and spring assemblies.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect, assemble, and replace rear MacPherson strut assemblies.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and repair suspension linkages and bushings.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Diagnose steering and tire wear problems, and determine necessary action.	ASE NATEF	M.Conn M.F; M.G; M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering

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Set correct alignment angles on front and rear wheels.	ASE NATEF	M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Alaska Reading, Writing, Math, & Science Standards	Alaska Employability Standards	Alaska Cultural Standards	All Aspects of Industry	Formative Assessments
Rotate and balance wheel assemblies.	ASE NATEF	M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Diagnose starting systems and determine necessary action.	ASE NATEF	M.M; S.B; W	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-6 Electronics
Remove, clean, and inspect alternator and determine necessary action.	ASE NATEF	M.M; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-6 Electronics
Repair or replace internal alternator or generator components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-6 Electronics
Repair or replace charging system components.	ASE NATEF	M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-6 Electronics
Diagnose and repair lighting systems.		M.M; S; W	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-6 Electronics
Repair or replace lights, sockets, wires and switches.		M.Conn M.M; M.P; R	A		Hlth/Safety Prin Tech Tech/Prod	ASE A-6 Electronics

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Instructional Resources

List the major instructional resources used for this course: (websites, textbooks, essential equipment, reference materials, supplies)

Recommended Text: Modern Automotive Technology, By James E. Duffy, The Goodheart-Willcox Company, Inc. 2000
Automotive Technology Curriculum Modules, Instructional Materials Laboratory, University of Missouri-Columbia, 1997

Resources: AK EED Safety Manual: <http://www.eed.state.ak.us/tls/CTE/docs/resources/safetymanual.pdf>
SkillsUSA: <http://www.skillsusa.org/contests.html>