

## CTE Course Description and Standards Crosswalk

### Course Information

Course Name	Automotive Suspension & Steering Tech
Course Number	86580
Number of High School Credits	1
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Automotive
Date of district Course Revision	September, 2013

### Career & Technical Student Organization (CTSO)

CTSO embedded in this sequence	SkillsUSA
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### Occupational Standards

Source of Occupational Standards	ASE/NATEFF
Names/Numbers of Occupational Standards	

### Registration Information

Course Description (brief paragraph – as shown in your student handbook or course list)	Automotive Suspension & Steering Tech covers in depth training in the suspension and steering systems of the automobile. This course is designed to teach the student skills necessary for future employment in the automotive field. A student successful in this course will be able to use skills learned in this course to help qualify for nationally recognized ASE (Automotive Service Excellence) certification in suspension and steering.
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Instructional Topic Headings (please separate each heading by a semi-colon)	Personal and Equipment Safety in The Lab; Identification, Use and Care of Tools and Equipment; Steering Systems; 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; Investigate Career Opportunities in The Automotive Field
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### Summative Assessments and Standards

Technical Skills Assessment (TSA)	
Course addresses:	
New Alaska ELA and Math Standards	
Alaska Cultural Standards	
All Aspects of Industry (AAI)	
Core Technical Standards	
Employability Standards	

### Employability Standards

Source of Employability Standards	
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### Tech Prep

Current Tech Prep Articulation Agreement? (Y/N)	Y
Date of Current Agreement	May, 2013

**DISTRICT NAME: Mat Su School District**

Postsecondary Institution Name	UAA
Postsecondary Course Name	
Postsecondary Course Number	
# of Postsecondary Credits	

### Additional CTE Course Information

Author	
Course developed by	
Course adapted from	
Date of previous course revision	
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	N

Standards Alignment
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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
Demonstrate safe laboratory techniques and handling of hazardous materials.	ASE NATEF				B	A	Hlth/Safety	AK EED Safety Manual, SP2.org
Select and operate appropriate hand tool, power tools, and related equipment.	ASE NATEF				B	A	Tech/Prod	AK EED Safety Manual, SP2.org
Exhibit responsibilities of employment standards including exhibiting dependability and meeting organizationally defined expectations.	ASE NATEF				B	A B	ALL	SkillsUSA
Identify and Investigate career opportunities and duties of an automotive technician.	ASE NATEF				B C	B	ALL	SkillsUSA AKCIS
Diagnose steering systems and determine necessary action.	ASE NATEF					A	Tech/Prod	ASE A-4 Susp & Steering

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<b>Student Performance Standards (Learner Outcomes or Knowledge &amp; Skill Statements)</b>	<b>Specific Occupational Skills Standard</b>	<b>Common Technical Core Standards</b>	<b>New Alaska ENG/LA Standards</b>	<b>New Alaska Math Standards</b>	<b>Alaska Cultural Standards</b>	<b>Employability/ Career Readiness Standards</b>	<b>All Aspects of Industry/ Systems</b>	<b>Assessment</b>
Clean and inspect power and manual steering gear boxes.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Reassemble, adjust, and install power and manual steering gear boxes.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Clean and inspect power and manual rack-and-pinion steering rack assemblies.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Reassemble, install and adjust power and manual rack-and-pinion steering rack.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and repair steering columns.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Clean, remove, and inspect steering linkage components.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect, repair, and replace power steering pumps.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Diagnose conventional and electronic front suspension systems and determine necessary action.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and repair control arm and spring assemblies on conventional systems.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering

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Diagnose MacPherson strut assemblies and determine necessary action.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect, assemble, and replace front MacPherson strut assemblies.	ASE NATEF					A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and replace front shock absorbers and stabilizer assemblies.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Repair, replace, and adjust wheel spindles and bearings.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Diagnose conventional and electronic rear suspension systems and determine necessary action.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and replace rear shock absorbers and spring assemblies.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect, assemble, and replace rear MacPherson strut assemblies.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Inspect and repair suspension linkages and bushings.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Diagnose steering and tire wear problems, and determine necessary action.						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.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering
Rotate and balance wheel assemblies.						A	Hlth/Safety Prin Tech Tech/Prod	ASE A-4 Susp & Steering

### Instructional Resources

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

AK EED Safety Manual <http://www.eed.state.ak.us/tls/CTE/docs/resources/safetymanual.pdf>  
 SkillsUSA: <http://www.skillsusa.org/contests.html>  
 AKCIS - Alaska Career Information System Information: [www.akcis.org](http://www.akcis.org)  
 ASE - National Institute for Automotive Service Excellence: <http://www.asecert.org>