

CTE Course Description and Standards Crosswalk

Course Information

Course Name	Automotive Engine Performance Tech
Course Number	8930
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	April 2013

Career & Technical Student Organization (CTSO)

CTSO embedded in this sequence	SkillsUSA
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Occupational Standards

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

Registration Information

Course Description (brief paragraph – as shown in your student handbook or course list)	Automotive Engine Performance Tech covers in depth technician training in the specialized area of engine performance. 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 engine performance.
Instructional Topic Headings (please separate each heading by a semi-colon)	

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
Postsecondary Institution Name	University of Alaska Anchorage - 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)	

Standards Alignment

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.	V701 C5.12				B1	A	HSE	AK EED Safety Manual, SP2.org
Select and operate appropriate hand tool, power tools, and related equipment.	ONET .26				B4	A	TPS	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				B3	A	PWH	SkillsUSA
Conduct engine performance tests using engine analyzers and determine necessary action.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, repair, and replace primary ignition components.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf

DISTRICT NAME: Mat Su Borough School District

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
Inspect, repair, and replace secondary ignition components.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Adjust ignition system to manufacturer's specifications.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Perform on-board computer system diagnosis.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Repair or replace on-board computer system components.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Diagnose fuel system problems and determine necessary action.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, repair or replace faulty fuel supply components.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Disassemble, clean, and inspect carburetors.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Reassemble, and adjust carburetors.	ASE NATEF					A	HSE; PT; TPS;	ASE A-8 Engine Perf
Disassemble, clean, and inspect fuel injection system components.	ASE NATEF					A	HSE; PT; TPS;	ASE,A-8 Engine Perf
Repair or replace fuel injection system components.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Adjust computer controlled carburetion and fuel injection systems.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Diagnose emission control systems and determine necessary action.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf

DISTRICT NAME: Mat Su Borough School District

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
Diagnose and repair exhaust system problems.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace positive crankcase ventilation system components.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace spark timing controllers.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace idle speed controllers.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace exhaust gas re-circulation system components.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace air management system components.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace inlet air temperature control system components.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace intake manifold heat controls.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf
Inspect, clean, and replace fuel vapor control system components.	ASE NATEF						HSE; PT; TPS;	ASE A-8 Engine Perf

Instructional Resources

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