

# EAC SKILLS DAY APRIL 11, 2019

**Students:** To register, contact your teacher or your school's Career and Technical Education Director.

**Teachers and CTE Directors:**  
Register your students at:  
[www.eacskillsday2018.eventbrite.com](http://www.eacskillsday2018.eventbrite.com)

**Contest Questions?**  
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**Registration questions?**  
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**EAC Skills Day Coordinator:**  
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## AUTOMOTIVE CONTEST

**WHO:** High School Automotive Students

**WHEN:** 8:30, 9:00, 9:50, 10:15, 10:40, 11:15 a.m.

**WHERE:** EAC Industrial Technology Building (ITB)  
(In the north end of the building in the Automotive Shop, Room #148)

### GENERAL GUIDELINES

- Schools can have no more than two groups and students need to be currently enrolled in an automotive technology program.
- Instructors need to select the three students who will compete as a group.
- Two groups will compete at a time with three students in each group.
- Students will compete in hands-on activities and take a ten question written test.
- Every student in the competition will take a written test. The student from their school with the most correct answers will count toward the group score.
- A maximum time of eight minutes will be allowed. A 60-second penalty will be assessed for each task mistake. No questioning of student judges will be allowed and scores are final. Groups will only be notified of the task area issue and will not be told the exact problem.
- Vehicles will be on jack stands for safety.

### Overview

- Part One: rotate two tires and torque lug nuts to 40-foot pounds.
- Part Two: Inspect engine oil level.
- Part Three: Using paper wire diagram printed from Mitchell's ProDemand, identify a wire color on a specific component.
- Part Four: Inspect vehicle exterior lighting system for proper operation-headlights, turn signals, park lights, brake lights, back-up lights, emergency lights, all running lights.
- Part Five: Measure primary and secondary ignition coil resistance (coil for DIS system will be set up on a table.)
- Part Six: Measure brake rotor in decimals.
- Part Seven: Take comprehensive ten questions ASE-style test covering ASE areas-brakes, electrical, engine performance, and suspension & steering. (Questions will be selected from G1 ASE study guide).

### Notes

- EAC will provide safety glasses and all tools.
- Lighting inspection activity: Use the checklist on the following page.
- DVDM will be provided for electrical measurements.
- Wire diagrams will be provided in paper form.
- Non-digital outside micrometers will be provided



**Eastern Arizona College**  
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# AUTOMOTIVE GROUP COMPETITION CHECKLIST

Student Names (Please print first and last name):

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High-school name: \_\_\_\_\_

## Lighting Inspection

	OK	BAD
Brake Lights	_____	_____
Running Lights	_____	_____
Left Turning Lights (Driver's Side)	_____	_____
Right Turning Lights (Passenger Side)	_____	_____
License Plate	_____	_____
Reverse Lights	_____	_____
Emergency Lights	_____	_____
Headlights	_____	_____

Judge (Pass/Fail)

## Fluid Inspection

	OK	Below Safe
Engine Oil	_____	_____

Brake Rotor Measurement \_\_\_\_\_ (In decimals)

Coil's Resistance Primary Resistance Measurement \_\_\_\_\_ Judge (Pass/Fail)

Secondary Resistance Measurement \_\_\_\_\_ Judge (Pass/Fail)

## Using Mitchell OnDemand

Service and repair literature

Locate a component's wire color on the circuit diagram provided.

\_\_\_\_\_ Judge (Pass/Fail)

## Tire Rotation

Torque 40 Ft. lbs

Front to Rear

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Judge \_\_\_\_\_ (Pass/Fail)

Initial Time

Time Penalty (60 second per problem)

Total Time

Written Test - (Highest Score, Least points missed)

= Final Score