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# DSBN REGIONAL AUTOMOTIVE SERVICE CHALLENGE SKILLS CHALLENGE 2024 SECONDARY LEVEL SCOPE

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### **PURPOSE OF THE CONTEST:**

- Allow students to showcase their knowledge, skills, and abilities in the Automotive Service field through simulated auto repair situations.
- Promote friendly competition and collaboration between students from the participating schools.

### **EVENT DETAILS:**

**Date:** Wednesday, February 28, 2024 **Time:** 8:30 am - 4:00 pm **Location:** Niagara College, Rankin Building, Welland Campus - TC114A

ENTRY: Students must register online at <u>2024 Skills Challenge Registration Form</u> with all the required information completed to be eligible to participate.

### SKILLS AND KNOWLEDGE TO BE TESTED:

- Engine components and measurement
  - o Identify, examine, measure for wear, record findings, and recommend repairs.
- Electrical Circuit Diagnosis
  - Locate and repair electrical faults on a circuit simulator board.
- On-board computer information and trouble code retrieval
  - Retrieve required information from on-board computer Solus scan tool.
- Written exam

- Answer questions covering all aspects of auto repair and diagnosis.
- Brake line flaring, bending and installation
  - Properly flare two ends of a brake line with proper flare nuts. One end Bubble Flare one end double flare. Properly bend the line and install into fittings.
- Information retrieval
  - Retrieve required repair and diagnosis information from Shop Key program.
- Disc brakes
  - Disassemble, inspect, measure pads, rotor min. thickness and run out. Reassemble.
- Drum brakes
  - Component Identification.
- Electrical Trainer Board
  - Follow an electrical schematic diagram and properly complete various circuits for vehicle lighting.

# SAFETY REQUIREMENTS:

- Competitors are required to follow all industry safety standards during the competition.
- Safety glasses and safety approved footwear is required in the automotive lab at all times.

# EQUIPMENT, MATERIALS, TOOLS, AND SUPPLIES:

## Equipment Supplied by the Contest Coordinator:

• Most tools, supplies and equipment will be supplied by the coordinator. Individual schools should supply their own flaring tools (double) to accommodate student familiarity.

## Equipment Supplied by the Competitor:

• Personal safety equipment (safety glasses) and event t-shirts must be worn at all times.

## **CLOTHING REQUIREMENTS:**

• Casual business attire, along with the supplied DSBN Technology t-shirts. Competitors will NOT be getting dirty. Note that the TV & Video Challenge will be going on as well.

# **PROJECT AND COMPETITION EXPECTATIONS:**

• Students will be required to complete various tasks at 9 stations, as listed in the "Skills and Knowledge To Be Tested" section. Each station has a time limit of 30 minutes.

#### JUDGING CRITERIA:

• Marks are determined by skills and abilities demonstrated during each station.

#### TRANSPORTATION:

• Students are responsible for their own transportation.

#### TEACHER'S ROLE:

- Instructors are expected to acquaint their student participants with all of the enclosed guidelines. Teachers may accompany their students or visit any time during the competition but may not assist the competitors during the challenge.
- Teachers should also forward a list of competitors participating from their school to the contest coordinator 7 days prior to the date of the contest.

### SPECIAL INSTRUCTIONS OR GUIDELINES:

- Students should be prepared for a full day of activities.
- Lunch will be provided.

#### **COMPETITION AGENDA:**

8:00 - 8:30 am	Sign in/ Arrival/ Set-up
8:30 am	Orientation & Opening Remarks
9:00 am	Competition begins
	Students rotate through 9 workstations
11:00 am	Lunch
11:30 pm	Competition resumes
2:00 pm	Closing ceremonies

\*\* Each competitor will be given a number by their coordinator upon registration at the location and will be judged anonymously during the competition.