News Release

Contact:
Jason Parent
Development and College Relations Office
33 Edgemont Drive
Presque Isle, ME 04769
Phone: (207) 768-2808
Fax: (207) 760-1101
jparent@nmcc.edu

February 15, 2012
NR12016

NMCC advances hybrid vehicle technology offerings

Aroostook County - As more hybrid and electric automobiles are produced by carmakers and purchased by consumers, the need to maintain and repair the vehicles is only expected to increase. That's why new curriculum and technology has been introduced to students enrolled in the transportation trades programs at Northern Maine Community College.

The addition of a course in advanced electronic systems and recent purchase by the College of a pre-owned Toyota Prius for use in the automotive technology lab are helping students better prepare for their future careers. According to NMCC instructors, the introduction and growth of the hybrid and electric vehicle has presented the greatest technological changes in the industry in more than a generation.

"Technology is moving at a rapid pace; education and research is a daily requirement to succeed and advance in the trade of vehicle repair," said Paul Lajoie, NMCC automotive instructor. "The new course and access to a hybrid vehicle for students to bring to life what we discuss in the classroom and to troubleshoot will be invaluable to their future careers as automotive technicians."

Lajoie points to the complexity of today's hybrid vehicles as "well above that of a standard vehicle." According to the instructor, a conventional vehicle's electrical system is almost entirely driven by 12 to 14 volts, whereas hybrid vehicles produce voltages ranging from 12 to 650 volts. Both AC and DC currents are active and variable voltages are common in the hybrid vehicles.

"Vehicles like the hybrid Ford Fusion and Toyota Prius are designed to minimize the need to measure live high-voltage circuits. However, there will be periods when an experienced hybrid vehicle technician will need to measure the dangerous high voltage circuits, wearing certified high-voltage gloves and electrical measuring equipment specialized in testing these systems safely," said Lajoie.

The new advanced electronic course in the transportation trades is designed to enhance students' electrical troubleshooting skills. Students also learn and understand the proper techniques required for safe high-voltage testing.

The hands-on exercises are performed using the new certified high voltage gloves and a new electrical measuring device recently obtained by the college. The addition of a 2008 Toyota Prius, purchased through a local dealer, has allowed students to perform troubleshooting exercises to better prepare them to work on such vehicles when they enter the workforce.

"This, without a doubt, makes the students much more marketable. They are prepared to begin their careers and do not need to 'train on the job' to begin working on hybrid vehicles," said Lajoie.

#####

Northern Maine Community College Instructor Paul Lajoie (center) demonstrates how to test high-voltage circuits on the Toyota Prius recently purchased by the College to enhance student training opportunities with hybrid vehicle technology. Observing Lajoie are students John Gardner (left) and Dan Richards (right) of Presque Isle.