

State Energy Sector Partnership Grant Certificate in Advanced Energy Storage Special Section at Schoolcraft College

Michigan has become the new center of the world's electric vehicle and advanced battery industries. The **State Energy Sector Partnership Grant** pays for all tuition costs for qualified dislocated workers or unemployed adults to teach them the skills required to secure employment in these growing industries.

Schoolcraft College is working in conjunction with Macomb Community College to offer MCC's two course Noncredit Certificate in Advanced Energy Storage (AES) at Schoolcraft College. The next class runs from February 21st to April 12th, on Tuesday and Thursdays from 5:30 – 8:30.

This program is ideal for aspiring technicians or experienced professionals seeking employment in the automotive or battery industry, as a technician, assembler or testing engineer, or as a highly paid hybrid, electric battery research and development engineer.

Admissions Requirements:

To qualify for the SESP Grant and this program you must be unemployed, have at least some college or vocational training, 10th grade math skills and preferably some work experience in electronics, construction or manufacturing, and be able to dedicate the time required to successful in this technical program.

Admissions and Enrollment Process:

If you are interested in participating in this exciting new program, please contact:

- Contact your local Michigan Works SESP Intake Specialist, or
- Contact Kris Betts, SESP Intake Coord, (586) 263-8388 or kbetts@macomb-stclairworks.org
- Meet with Michigan Works staff to review the program and to fill out required paperwork.
- Select the class you plan on attending. Michigan Works will register you with the college.
- Books will be provided on the first day of class.

Program Description:

This Schoolcraft College Section was developed by the Macomb Community College Engineering and Advanced Technology Workforce and Continuing Education program. Students who complete this program can earn 4 credits that can be applied towards a degree at Macomb Community College, or may be able to transfer the credit towards a degree at Schoolcraft College. What follows are descriptions of the two courses:

Advanced Energy Storage – High Density Mobile Battery Applications

The course covers mobile electric applications for rechargeable batteries. This course provides an introduction to Hybrid Electric Vehicles (HEV). Topics include hybrid systems, hybrid batteries, regenerative braking, safety procedures, hybrid maintenance and diagnostics, and car battery connections to the smart grid.

Advanced Energy Storage – High Density Mobile Batteries

The course covers rechargeable batteries for mobile electric applications at the battery cell, module, and pack level. The course starts with energy fundamentals including kinetic and potential energy. Electricity fundamentals including Ohm's law, high voltage safety and personal protective equipment (PPE) are introduced. An overview of lead acid, nickel metal hydride and lithium ion battery technology is provided. In addition, battery charging methods and times, and battery storage, handling and disposal are discussed.