

State Energy Sector Partnership Grant Macomb Community College - Certificate in Advanced Energy Storage

Michigan has become the new center of the world's electric vehicle and advanced battery industry. Michigan's aggressive efforts mean that 17 of the global industry's best-practice companies are or will soon be operating here. With their total investment of \$5.8 billion, these companies hope to generate more than 63,000 new jobs in Michigan.

In conjunction with the State Energy Sector Partnership Grant (SESP), Macomb Community College (MCC) is offering a Certificate in Advanced Energy Storage (AES) after completion of two non-credit courses. The SESP is a federal grant designed to teach workers the skills required in Advanced Energy Storage and Renewable energy.

Admissions Requirements:

MCC requires that participants have a High School diploma, or GED, to be admitted into the program. In addition, students must demonstrate strong math skills, have experience in an automotive or manufacturing environment, and be able to dedicate the time required to be successful in this technical program.

Admissions and Enrollment Process:

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

David Shevrin at (248) 788-9511 or
davidshevrin@yahoo.com

Kris Betts at (586) 263-8388 or
kbetts@macomb-stclairworks.org

- Meet with Michigan Works staff to fill out required paperwork.
- Select the course and section you plan on attending. You will automatically be registered.

Once the MWA determines you are eligible to participate in both the SESP grant program and the certificate program, and you select your first course and section, your name will be passed on to MCC and books will be provided the first day of class. You can apply for formal enrollment into MCC on your own, but this is not a requirement for participation in this program.

Program Description:

The MCC Certificate in AES is offered through the Engineering and Advanced Technology Workforce and Continuing Education program. Continuing students can get credit for this certificate that can be applied towards a future Applied Technology degree. What follows are descriptions of these two courses:

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.

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.

Course Schedules

Macomb Community College is offering the first course starting the week of September 4th, 2 days a week from 6:00 – 10:00 pm. The first course runs for 8 weeks and the second course will start within a week or two after the end of the first course. Courses are being taught at the Macomb Community College MTEC at 7900 Tank Ave, Warren, MI 48092.