

Energy and Power

Learn about Energy and Power through hands-on projects to understand the interplay of the generation, distribution and the use of energy. Students will learn how to design and construct motors, pumps, heat exchangers, hydraulics and pipeline systems. Work with renewable and non-renewable energy generation, transformers and the electrical grid to understand how energy travels along power lines. Five types of energy will be explored - mechanical, heat, chemical, electromagnetic and nuclear power. Students will also learn about automation by programming and managing robotics.

What You'll Learn

Course	Hours
Energy and Power Foundations	120
Controls, Instrumentation, and Robotics	120
Energy Transmission and Distribution	120
Automation and Technology	120
Workforce Connection	120
Total	600

Career Readiness Certificate

[WorkKeys®](#), an assessment tool from the ACT® organization, measures skills employers have identified as critical to job success in their industry and are used in hiring and promoting employees. Students are able to earn the ACT®-issued [National Career Readiness Certificate](#) by meeting the score requirements for their job field on three WorkKeys® assessments.

Matching the right employees with the right job creates employee job satisfaction, increased self-confidence and the best wages possible for the employee. The employer benefits with reduced turnover and training, increased productivity and overall company success. To learn about the WorkKeys® scores needed for your future career field visit [Job Profiles](#).

Graduation Requirements

In order to be successful in a career, students will need to meet all technical and academic standards related to their career of choice at Meridian. Meridian offers rigorous programs of study designed in cooperation with business and industry to ensure students are fully prepared for the demands of the workplace.

Meridian's Career Ready Credential

When a student completes all standards as set forth in their program of study, they will be considered a graduate of Meridian and receive the Career Ready Credential. Students who do not meet these standards will not be considered graduates of Meridian. Students should have:

- Completed all courses in a career major with a grade of "C" or above and achieved required industry-based certifications for the career major
- Achieved WorkKeys® scores at or above the level required for the career major or earned an ACT® composite score of 19 or greater (Students may substitute equivalent scores on SAT, ACCUPLACER or other approved assessments.)

Additional Endorsements

Students earning a Career Ready Credential may also earn the Postsecondary Ready Endorsement, Citizenship Ready Endorsement and the National Career Readiness Certificate (CRC).

Postsecondary Ready Endorsement

- Earned, or was on track to earn, a high school diploma or GED at the time of Meridian graduation
- Achieved a subscore of 19 or greater on the ACT® in math, English, reading and science (Students may substitute equivalent scores on SAT, ACCUPLACER or other approved assessments.)

Citizenship Ready Endorsement

- Completed employment profile, résumé, job application, cover letter, mock interview

and job search training through OKJobMatch.com

- Documented active membership in a [CareerTech Student Organization](#) or professional association related to the program of study
- Documented 20 hours of volunteerism or service in a community activity

National Career Readiness Certificate (CRC)

- Completed WorkKeys® assessments in Applied Math, Workplace Documents and Graphic Literacy and received a silver, gold or platinum National [Career Readiness Certificate](#) through the Oklahoma Department of Career and Technology Education.