

# Credit for Prior Learning: Industrial Engineering Technology

## ECC CREDIT FOR PRIOR LEARNING (CPL)

Learning is not confined to the traditional classroom setting. Students can also obtain valuable education and skills in other ways such as on-the-job-training or through the military, volunteer work, self-enrichment, non-credit workshops or seminars and even personal interests and hobbies.

East Central College recognizes this and provides a way for students to translate real-world experience into academic credit so they can realize their educational and career goals. Through **ECC Credit for Prior Learning (CPL)**, students are asked to demonstrate their existing knowledge and skills through assessment tests and projects that adhere to the standards of the **Association of Technology, Management and Applied Engineering (ATMAE)**. Those who meet the college-equivalent criteria will receive credit for certain classes. This allows students to progress onto the remaining coursework sooner so they can complete their certificate or degree in a shorter amount of time.

## INDUSTRIAL ENGINEERING TECHNOLOGY (IET) OVERVIEW

The industrial engineering technician career employs the principles of science, engineering and mathematics to solve technical problems in research, development, manufacturing, sales, construction, inspection and maintenance. The work of this professional is more narrowly focused and application-oriented than that of scientists and engineers.

Offered at the college's Washington site (Four Rivers Career Center), the **ECC Industrial Engineering Technology** program prepares students to function as technical assistants to engineers performing installation, maintenance and modification of advanced manufacturing equipment. Those enrolled in the program, which is accredited by ATMAE, are trained in machinery maintenance and repair, basic electrical principles, motor controls and process control systems.

ECC students are also trained in hydraulic and pneumatic control systems, robotics, programmable controls, industrial computers, welding, basic machine shop equipment, safety practices and basic HVAC systems. Moreover, they learn the problem-solving, teamwork and self-management skills demanded by business and industry today.

## CREDIT FOR PRIOR LEARNING AND THE IET PROGRAM

The Industrial Engineering Technology program offers prior learning credit for the following courses, with a total of 15 academic credits possible:

- IE 1103 *Introduction to Manufacturing Processes* (three credit hours)
- IE 1123 *Industrial Computer Applications* (three credit hours)
- IE 1143 *Industrial Electricity* (three credit hours)
- IE 2213 *PLC-Programmable Logic Controllers* (three credit hours)
- IE 2183 *Process & Control Systems* (three credit hours)

To qualify, students must first make an appointment with the program coordinator and arrange to take assessments and pay any testing fees. In addition, tuition waivers may be available through **MoManufacturingWINS** funding; see the Transitions program coordinator for details.

### East Central College

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Union, Missouri 63084  
636-584-6500  
www.eastcentral.edu

### Admissions Office

ECC Campus  
636-584-6563  
admissions@eastcentral.edu

### Program Location

ECC-Washington  
Located at the  
Four Rivers Career Center  
1978 Image Drive  
Washington, MO 63090  
636-239-0598

### Program Faculty/ Coordinator

Nathan Esbeck  
636-239-0598  
naesbeck@eastcentral.edu

### Division

Mathematics and  
Physical Science  
636-584-6773



NATIONAL  
CAREER READINESS  
CERTIFICATE®



ACCREDITED BY  
**ATMAE**

The Association of Technology,  
Management, and Applied Engineering

### East Central College

is accredited by the Higher  
Learning Commission of the  
North Central Association of  
Colleges and Schools  
30 N. LaSalle St., Suite  
2400 Chicago, Illinois  
60602-2504  
800-621-7440

# ECC CREDIT FOR PRIOR LEARNING

## *Industrial Engineering Technology*

### ELIGIBLE CLASSES AND ASSESSMENT CRITERIA

The official list of Industrial Engineering Technology coursework that qualifies for ECC Credit for Prior Learning is outlined below. The assessment methods are also detailed.

#### INTRODUCTION TO MANUFACTURING PROCESSES (IE 1103 - THREE CREDIT HOURS)

To receive credit for this CPL course, students need to pass at 80% or better:

- Certified Production Technician Exam (Manufacturing Standards Skills Council)

#### INDUSTRIAL COMPUTER APPLICATIONS (IE 1123 - THREE CREDIT HOURS)

To receive credit for this CPL course, students need to pass at 80% or better:

- Departmental Test (written exam)

After receiving a passing score, they will also need to demonstrate their ability through the:

- Skills Test (hands-on project)

#### INDUSTRIAL ELECTRICITY (IE 1143 - THREE CREDIT HOURS)

To receive credit for this CPL course, students need to pass at 80% or better:

- Departmental Test (written exam)

After receiving a passing score, they will also need to demonstrate their ability through the:

- Skills Test (show proper oscilloscope and meter use)

#### PROCESS & CONTROL SYSTEMS (IE 2183 - THREE CREDIT HOURS)

To receive credit for this CPL course, students need to pass at 80% or better:

- Departmental Test (written exam)

After receiving a passing score, they will also need to demonstrate their ability through the:

- Skills Test (hands-on project)

#### PLC-PROGRAMMABLE LOGIC CONTROLLERS (IE 2213 - THREE CREDIT HOURS)

To receive credit for this CPL course, students need to pass at 80% or better:

- Departmental Test (written exam)

After receiving a passing score, they will also need to demonstrate their ability through the:

- Skills Test (hands-on project)



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