Automation Engineer Technology Certificate

The Johnson County Community College Automation Engineer Technology program is in alignment with the National Center for Education Statistics (NCES) CIP code 15.0406: Automation Engineer Technology/Technician. This program prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, installing, calibrating, modifying and maintaining automated systems. This program includes instruction in computer systems; electronics and instrumentation; programmable logic controllers (PLCs); electric, hydraulic and pneumatic control systems; actuator and sensor systems; process control; robotics; applications to specific industrial tasks; and report preparation.

The 31-hour Automation Engineer Technology Certificate will provide students with the basic skills required by business and industry to start a career as an industrial/automation manufacturing technician.

(Major Code 3200; CIP Code 15.0406)

Automation Engineer Technology Program web page (http://www.jccc.edu/academics/credit/automation-engineer-technology/)

Program Learning Outcomes

Johnson County Community College (JCCC) is committed to offering high-quality affordable programs that focus on developing knowledge and skills conducive to life-long learning. Both the General Education Student Learning Outcomes (https://www.jccc.edu/about/leadership-governance/administration/institutional-effectiveness-branch/outcomes-assessment/learning-outcomes.html) and Institutional Learning Outcomes (https://www.jccc.edu/about/leadership-governance/administration/institutional-effectiveness-branch/outcomes-assessment/institutional-learning-outcomes.html) convey JCCC's approach to programmatic outcomes. Additionally, students who successfully complete the Automation Engineer Technology program from JCCC will be able to:

- Demonstrate the safety procedures when working in an industrial setting.
- Demonstrate the safety procedures when working with hydraulic and pneumatic systems.
- Demonstrate the safety procedures when working with programmable logic controllers.
- Demonstrate the safety procedures when working with electrical systems.
- Obtain employment related to the career field.

Certificate Requirements

First Semester

Code	Title	Hours
AET 110	Industrial Maintenance	3
AET 111	AC/DC Circuits	4
AET 120	Industrial Fluid Power	3
AET 122	Industrial Code	3
MATH 130	Technical Mathematics I* (or higher)	3
Total Hours		**16**

Second Semester

Code	Title	Hours
AET 160	Programmable Logic Controllers I*	3
AET 185	LAN Cabling and Installation	3
AET 255	Motor Controls and Variable Frequency Drives*	3
COMS 120	Interpersonal Communication (SGE 020) (SGE 070)	3
or COMS 121	Public Speaking	
CMGT 100	Industrial Safety/OSHA-30	3
Total Hours		**15**

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Total Program Hours: 31

* This course has registration requirements.
\+ COMS 121 is the recommended course.

Kansas Systemwide General Education (SGE) Key

- English SGE 010
- Communications SGE 020
- Mathematics and Statistics SGE 030
- Natural and Physical Sciences SGE 040
- Social and Behavioral Sciences SGE 050
- Arts and Humanities SGE 060
- Cavalier Credits SGE 070