

ENGINEERING TECHNOLOGY

Program Description

The program trains students to be specialists in the practical application and implementation of existing technology within the field of engineering. This degree will prepare highly skilled and needed workers for area manufacturers. The Engineering Technology program includes areas of specialization in Automation, Electro-Mechanical and Process Control.

A sequence of calculus courses is available for those students wishing to transfer on for their Bachelor's degree. Offered at Clinton, Muscatine and Scott Community Colleges the program will provide delivery options that will allow individuals who are currently working to complete the degree through flexible scheduling, hybrid courses (a combination of in-class and online learning), and a model of eight-week modules which allows for numerous start times during the year.

Award Options

Engineering Technology Associate of Applied Science

- Automation Concentration
- Electromechanical Concentration
- Process Control Concentration

Engineering Technology Electromechanical Diploma

Basic Electricity Certificate

Basic Electronics Certificate

Electrical Systems Certificate

Process Control Technology Certificate

Job Outlook

Employment of engineering technicians is expected to grow 5 percent from 2012 to 2022, which is slower than the average for all occupations. Employment in this occupation depends on the overall state of manufacturing. Median annual wages of engineering technicians were \$51,980 in May 2012. The lowest 10 percent earned less than \$33,370, and the top 10 percent earned more than \$76,660.

For details, please visit this link <http://www.bls.gov/ooh/>

The Engineering Technology Program is funded in part by the Trade Adjustment Assistance Community College and Career Training (TAACCT) Grant program which is in partnership with the Department of Labor and the Department of Education. Through these multi-year grants, the Department of Labor is helping to ensure that our nation's institutions of higher education are helping adults succeed in acquiring the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers.



THE *Community's College*



**CLINTON, MUSCATINE
AND SCOTT COMMUNITY
COLLEGES**

Program Faculty

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ENGINEERING TECHNOLOGY

Engineering Technology AAS Degree

TERM 1 – ALL CONCENTRATIONS

		Credits
ELE:101	Industrial Safety [1.00 credits] OR	1.00 – 3.00
MFG:106	Workplace Safety [3.00 credits] OR	
MFG:186	Plant Safety [1.00 credits]	
ELE:216	DC Circuit Analysis	3.00
ELE:217	AC Circuit Analysis	3.00
IND:134	Print Reading	2.00
MAT:128	Precalculus [4.00 credits] OR	4.00
MAT:210	Calculus I [4.00 credits] OR	
MAT:705	Industrial Math & Measurement I [2.00 credits] AND	
MAT:706	Industrial Math & Measurement II [2.00 credits]	
		13.00

Basic Electricity Certificate Total.....13.00

TERM 2 – ALL CONCENTRATIONS

CSC:110	Introduction to Computers [3.00 credits] OR	3.00 – 4.00
CSC:107	Computers Literacy [3.00 credits] OR	
CSC:112	Computer Fundamentals for Technicians I/A [2.00 credits] AND	
CSC:113	Computer Fundamentals for Technicians I/B	
ELE:225	Electrical Motor Control & Power Distribution	3.00
ELT:309	Digital Circuits	3.00
ELT:312	Solid State Devices and Systems	3.00
PHY:185	Conceptual Physics Fundamentals I	2.00
		14.00 – 15.00

Basic Electronics Certificate Total.....27.00 – 28.00

TERM 3 – SUMMER – ALL CONCENTRATIONS

---:---	Humanities Elective**	3.00
ENG:105	Composition I OR	3.00
ENG:107	Composition I: Technical Writing	
PHY:186	Conceptual Physics Fundamentals II	2.00
		8.00

Engineering Technology Electromechanical Diploma Total 35.00 – 36.00

TERM 4 – ALL CONCENTRATIONS

EGT:117	Fluid Power Fundamentals	2.00
ELT:123	Programmable Logic Controllers	3.00
ELT:125	Advanced PLC	3.00
IND:143	Motors and Drives	3.00
MFG:505	Lean Manufacturing	1.00
		12.00

Clinton Community College

1000 Lincoln Boulevard,
Clinton, IA 52732
563-244-7001
1-800-638-0559

www.facebook.com/clintoncommunitycollegeia

Admissions Officer

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Muscatine Community College

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If you have questions or complaints related to compliance with this policy, please contact Debora J. Sullivan, Equal Employment Opportunity Officer/Equity Coordinator, Eastern Iowa Community College District, 101 West Third Street, Davenport, Iowa 52801, 563-336-3487, djsullivan@eicc.edu or the Director of the Office for Civil Rights, U.S. Department of Education, Citigroup Center, 500 West Madison Street, Suite 1475, Chicago, Illinois 60661-7204, phone number 312-730-1560, fax 312-730-1576, OCR. Chicago@ed.gov.

TERM 5 – AUTOMATION CONCENTRATION

ATR:105	Industrial Robotics	3.00
ATR:106	Motion Control	3.00
ELT:177	Microcontrollers	3.00
(Select two courses from the following)		
CHM:122	Introduction to General Chemistry	4.00
EGT:137	Fluid Power Control	4.00
EGT:145	Fluid Power Maintenance	4.00
IND:136	Process Control I	3.00
IND:137	Process Control II	3.00
		<u>15.00 - 17.00</u>

TERM 5 – ELECTROMECHANICAL CONCENTRATION

ATR:106	Motion Control	3.00
EGT:137	Fluid Power Control	4.00
EGT:145	Fluid Power Maintenance	4.00
(Select two courses from the following)		
ATR:105	Industrial Robotics	3.00
CHM:122	Introduction to General Chemistry	4.00
ELT:177	Microcontrollers	3.00
IND:136	Process Control I	3.00
IND:137	Process Control II	3.00
		<u>17.00 - 18.00</u>

TERM 5 – PROCESS CONTROL CONCENTRATION

CHM:122	Introduction to General Chemistry	4.00
IND:136	Process Control I	3.00
IND:137	Process Control II	3.00
(Select two courses from the following)		
ATR:105	Industrial Robotics	3.00
ATR:106	Motion Control	3.00
EGT:137	Fluid Power Control	4.00
EGT:145	Fluid Power Maintenance	4.00
ELT:177	Microcontrollers	3.00
		<u>16.00 - 18.00</u>

Engineering Technology AAS Total **62.00**

***HUMANITIES ELECTIVES

(Select one of the following courses)		
ECN:120	Principles of Macroeconomics	3.00
ECN:130	Principles of Microeconomics	3.00
HUM:105	Working in America	3.00
HUM:110	Changes and Choices	3.00
POL:111	American National Government	3.00
PSY:111	Introduction to Psychology	3.00
SOC:110	Introduction to Sociology	3.00

Credits

Credits

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Electrical Systems Diploma

		Credits
TERM 1		
CSC:110	Introduction to Computers [3.00 credits] OR	3.00 – 4.00
CSC:107	Computers Literacy [3.00 credits] OR	
CSC:112	Computer Fundamentals for Technicians I/A [2.00 credits] AND	
CSC:113	Computer Fundamentals for Technicians I/B	
ELE:101	Industrial Safety [1.00 credits] OR	1.00 – 3.00
MFG:106	Workplace Safety [3.00 credits] OR	
MFG:186	Plant Safety [1.00 credits]	
ELE:216	DC Circuit Analysis	3.00
ELE:217	AC Circuit Analysis	3.00
MAT:705	Industrial Math and Measurement I	2.00
MFG:505	Lean Manufacturing	1.00
		13.00
TERM 2		
ATR:105	Industrial Robotics	3.00
ELE:225	Electrical Motor Control & Power Distribution	3.00
ELT:123	Programmable Logic Controllers	3.00
ELT:309	Digital Circuits	3.00
ELT:312	Solid State Devices and Systems	3.00
		15.00
TERM 3 – SUMMER		
ATR:106	Motion Control	3.00
ELT:125	Advanced PLC	3.00
IND:143	Motors and Drives	3.00
		9.00
Electrical Systems Diploma Total		37.00

Process Control Technology Certificate

		Credits
TERM 1		
ELE:101	Industrial Safety [1.00 credits] OR	1.00 – 3.00
MFG:106	Workplace Safety [3.00 credits] OR	
MFG:186	Plant Safety [1.00 credits]	
ELE:216	DC Circuit Analysis	3.00
ELE:217	AC Circuit Analysis	3.00
IND:134	Print Reading	2.00
MAT:705	Industrial Math and Measurement I	2.00
MAT:706	Industrial Math and Measurement II	2.00
		13.00
TERM 2		
CHM:122	Introduction to General Chemistry	4.00
ELE:225	Electrical Motor Controls & Power Distribution	3.00
ELT:312	Solid State Devices and Systems	3.00
IND:136	Process Control I	3.00
		13.00
TERM 3 – SUMMER		
IND:137	Process Control II	3.00
		3.00
Term 3 Optional Course		
EGT:902	Coop/Internship	2.00
Process Control Technology Certificate Total		29.00

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