

ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER MAINTENANCE AND NETWORKING, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #6312

Effective May 2023

Division of Engineering, Business and Information Technologies (<http://catalog.lorainccc.edu/academic-programs/engineering-business-information-technologies/>)

The computer maintenance and networking program provides a solid foundation in the principles of electronics, with an emphasis on the installation, maintenance and repair of computer systems, networks and associated equipment. Along with a broad, general electronics background, students are given comprehensive information and training in computer system structure, peripheral device operation, installation procedures and troubleshooting practices through this extensive, hands-on curriculum. Typical job titles: computer systems specialist, computer maintenance technician, field service representative, installation technician, field engineer, systems integrator and applications specialist. Lorain County Community College has articulation agreements with colleges and universities including programs offered by LCCC's University Partnership.

First Year

Fall Semester		Hours
CMNW 101	A+ CERTIFICATION PREPARATION I	4
CMNW 141	COMPUTER DIAGNOSTIC AND REPAIR	3
ELCT 111	ELECTRICAL CIRCUITS I	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ²	1
Hours		18

Spring Semester

CMNW 201	A+ CERTIFICATION PREP II ¹	4
ELCT 121	DIGITAL ELECTRONICS ¹	4
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS ¹	3
Arts and Humanities Elective ³		3
Hours		14

Second Year

Fall Semester		Hours
CMNW 145	NETWORK INSTALLATION/DIAGNOSTICS	4
CMNW 221	PROGRAMMING IN C & C++ FOR ENGINEERING TECHNOLOGY APPLICATIONS ¹	4
ELCT 233	ELECTRONIC DEVICES I ¹	4

PHYC 150	GENERAL PHYSICS I ¹	4
Hours		16
Spring Semester		
CMNW 230	DATA COMMUNICATIONS	5
CMNW 241	ADVANCED COMPUTER AND NETWORK DIAGNOSTICS ¹	5
Social Sciences Elective ⁴		3
Hours		13
Total Hours		61

1

Indicates that this course requires a prerequisite.

2

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 or more credit hours.

3

Select any Arts and Humanities Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

4

Select any Social Science Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

Program Contact(s):

Hikmat Chedid
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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team (<https://www.lorainccc.edu/admissions-and-enrollment/advising-and-counseling/>).

More program information can be found on our website. (<https://www.lorainccc.edu/it/hardware-maintenance-and-information-systems-support/associate-of-applied-science-in-electronic-engineering-technology-computer-maintenance-and-networking/>)

Program Learning Outcomes

1. Demonstrate an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline.
2. Demonstrate an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline
3. Demonstrate an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
4. Demonstrate an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results
5. Demonstrate an ability to function effectively as a member of a technical team

6. Demonstrate the application of electric circuits, computer programming, associated software applications, analog and digital electronics, microcomputers, operating systems, local area networks, and engineering standards to the building, testing, operation, and maintenance of computer systems and associated software systems
7. Demonstrate the application of natural sciences and mathematics at or above the level of algebra and trigonometry to the building, testing, operation, and maintenance of computer systems and associated software systems

Accelerated Pathway

The Accelerated Pathway for the Electronics Engineering Technology - Computer Maintenance and Networking, Associate of Applied Science is a helpful guide for students who desire the convenience of an extensive selection of online course offerings and who seek to complete their degree within as little as 15 months. Students are encouraged to enroll in 8 or 10 week sessions to maximize accelerated options. Please meet with an advisor to ensure the courses in this pathway align with your educational goals.

Course	Title	Hours
First Year		
Fall Semester		
CMNW 141	COMPUTER DIAGNOSTIC AND REPAIR	3
ELCT 111	ELECTRICAL CIRCUITS I	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ²	1
Social Science Elective		3
Hours		17
Spring Semester		
CMNW 145	NETWORK INSTALLATION/DIAGNOSTICS	4
ELCT 121	DIGITAL ELECTRONICS ¹	4
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS ¹	3
PHYC 150	GENERAL PHYSICS I ¹	4
Arts and Humanities Elective		3
Hours		18
Summer Semester		
CMNW 221	PROGRAMMING IN C & C++ FOR ENGINEERING TECHNOLOGY APPLICATIONS ¹	4
CMNW 101	A+ CERTIFICATION PREPARATION I (1st 5 week session)	4
CMNW 201	A+ CERTIFICATION PREP II (2nd 5 week session) ¹	4
Hours		12
Second Year		
Fall Semester		
CMNW 230	DATA COMMUNICATIONS ¹	5
CMNW 241	ADVANCED COMPUTER AND NETWORK DIAGNOSTICS ¹	5

ELCT 233	ELECTRONIC DEVICES I ¹	4
Hours		14
Total Hours		61

1

Indicates that this course requires a prerequisite.

2

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 or more credit hours.

Arts and Humanities Electives

Code	Title	Hours
ARTS 243G	ART HISTORY I	3
ARTS 244G	ART HISTORY II	3
ARTS 245G	WORLD ART	3
ARTS 246	HISTORY OF PHOTOGRAPHY	3
ARTS 254	HISTORY OF AMERICAN ARCHITECTURE	3
ENGL 251	AMERICAN LITERATURE I	3
ENGL 252	AMERICAN LITERATURE II	3
ENGL 253G	INTRODUCTION TO WORLD LITERATURE	3
ENGL 254G	INTRODUCTION TO HISPANIC LITERATURE	3
ENGL 255G	INTRODUCTION TO FICTION	3
ENGL 257G	INTRODUCTION TO POETRY	3
ENGL 259G	INTRODUCTION TO DRAMA	3
ENGL 261G	MASTERPIECES OF BRITISH LITERATURE I	3
ENGL 262G	MASTERPIECES OF BRITISH LITERATURE II	3
ENGL 266G	AFRICAN AMERICAN LITERATURE	3
ENGL 269G	INTRODUCTION TO SHAKESPEARE	3
HUMS 151G	INTRODUCTION TO HUMANITIES	3
HUMS 261G	INTRODUCTION TO GREAT BOOKS: ANCIENT WORLD TO THE RENAISSANCE	3
HUMS 262G	INTRODUCTION TO GREAT BOOKS: EARLY MODERN TO THE 20TH CENTURY	3
MUSC 262G	MUSIC AS A WORLD PHENOMENON	3
PHLY 165	BIOETHICS	3
PHLY 262G	INTRODUCTION TO EASTERN PHILOSOPHY	3
RELG 181G	INTRODUCTION TO WORLD RELIGIONS	3
RELG 261	RELIGION IN AMERICA	3
RELG 262G	INTRODUCTION TO EASTERN PHILOSOPHY	3
THTR 151G	INTRODUCTION TO THEATER	3

Social Science Electives

Code	Title	Hours
HSTR 151G	CIVILIZATION I	3
HSTR 152G	CIVILIZATION II	3
HSTR 161	UNITED STATES I	3
HSTR 162	UNITED STATES II	3
HSTR 171G	THE WORLD SINCE 1900	3
HSTR 176	OHIO HISTORY	3

HSTR 252G	WOMEN IN WORLD HISTORY	3
HSTR 267G	AFRICAN AMERICAN HERITAGE	3
PLSC 156	AMERICAN NATIONAL GOVERNMENT	3