COMPUTER ENGINEERING TECHNOLOGY, COMPUTER APPLICATIONS INTEGRATION SPECIALIST MAJOR, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #6222

Effective May 2023

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

The computer engineering technology – computer applications integration specialist major provides graduates with the skills necessary to design and implement software and hardware interfaces and networking of equipment with computers, computing devices and communication systems for a variety of industrial sectors including health care, law enforcement, manufacturing, logistics/transportation and other sectors. Graduates will be proficient in the design, application, installation, operations and maintenance of computer, networks and other digital devices and associated equipment. Along with a general electronics background, students are given comprehensive information and training in installation, networking and interfacing of industry-specific equipment for the purpose of optimizing communication. Through proper selection of the two industry-specific directed study and capstone courses, students will specialize in the equipment found in their chosen specific industry sector, providing them the experience necessary to enter the job market with confidence. This program articulates to The University of Akron toward a three-plus-one bachelor's degree in computing applications specialist through Lorain County Community College's University Partnership. The associate and bachelor's degree combination can be completed in three years. Graduates may easily specialize in multiple industry sectors by taking only two sector-specific courses anytime during their career.

First Year

Fall Semester

		Hours
CMNW 101	A+ CERTIFICATION PREPARATION I	4
CMNW 145	NETWORK INSTALLATION/DIAGNOSTICS	4
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY [2]	1
	Hours	16

Spring Semester

CMNW 201	A+ CERTIFICATION PREP II [1]	4
ECNM 151	PRINCIPLES OF MACROECONOMICS	3
ELCT 121	DIGITAL ELECTRONICS	4
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS [1]	3
	Hours	14

Second Year

Fall Semester

CMNW 121	DATA COLLECTION ANALYSIS AND FORENSIC TOOLS	4
CMNW 181	INDUSTRY SPECIFIC DIRECTED STUDIES [1,3]	4
CMNW 221	PROGRAMMING IN C & C++ FOR ENGINEERING TECHNOLOGY APPLICATIONS [1]	4
PHYC 150	GENERAL PHYSICS I [1]	4
	Hours	16

Spring Semester

CMNW 223	NETWORK FORENSICS AND INVESTIGATIVE TECHNIQUES [1]	4
CMNW 230	DATA COMMUNICATIONS [1]	5
CMNW 248	COMPUTER FORENSICS AND PROJECT MANAGEMENT CAPSTONE [1]	6
Arts and Humanities Elective [4]		3
	Hours	18
	Total Hours	64

[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]

Student will select industry-specific course; must have division approval.

[4]

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

Program Contact(s):

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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/associate-of-computer-application-engineering-technology-in-application-integration/)

1. Demonstrate knowledge, techniques, skills, and use of the appropriate device networking and application integration tools

2. Solve application integration problems using appropriate diagnostics tools and techniques

3. Communicate analytical procedures, and technical report findings to a variety of stake holders using written, oral, and graphical communication

Accelerated Pathway

The Accelerated Pathway for the Computer Engineering Technology - Computer Applications Integration Specialist Major, 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 145	NETWORK INSTALLATION/DIAGNOSTICS	4
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY [2]	1
Arts and Humanities Elective		3
	Hours	**15**
Spring Semester		
CMNW 121	DATA COLLECTION ANALYSIS AND FORENSIC TOOLS	4
CMNW 181	INDUSTRY SPECIFIC DIRECTED STUDIES [1,3]	4
ECNM 151	PRINCIPLES OF MACROECONOMICS	3
ELCT 121	DIGITAL ELECTRONICS [1]	4
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS [1]	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 223	NETWORK FORENSICS AND INVESTIGATIVE TECHNIQUES [1]	4
CMNW 230	DATA COMMUNICATIONS [1]	5
PHYC 150	GENERAL PHYSICS I [1]	4
CMNW 248	COMPUTER FORENSICS AND PROJECT MANAGEMENT CAPSTONE [1]	6
	Hours	**19**
	Total Hours	**64**

[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]

Student will select industry-specific course; must have division approval.

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