

# COURSE SEQUENCE GUIDE | FULL-TIME ENROLLMENT Computer Programming and Analysis - Internet of Things (IoT) Applications Associate in Science | Code: 25076 | 60 credits Effective Term: Fall 2024 (2247)

Semester 1

Course ID	Course Title	Credits	Pre/Co-requisites
ENC 1101	English Composition I	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MAC 1105	College Algebra	3	Prerequisite: MAT1033 •Students must seek advisement for proper mathematics course from discipline chairperson.
CGS 1060C*	Intro to Computer Technology and Applications	4	
COP 1334*	Introduction to C++ Programming	4	
	Semester Credits	14	

## Semester 2

Course ID	Course Title	Credits	Pre/Co-requisites
CGS 1540C	Database Concepts and Design	4	
CIS 2331	Systems Analysis, Design and Implementation	5	
COP 2800	Java Programming	4	Prerequisite: COP 1334
	Semester Credits	13	

### Semester 3

Course ID	Course Title	Credits	Pre/Co-requisites
Social Science	AMH 2010, AMH 2020, POS 2041	3	
Humanities	ARH 1000, HUM 1020, LIT 2000, MUL 1010, PHI 2010, THE 2000	3	Note: ENC 1101 is a prerequisite to LIT 2000.
Natural Science	AST 1002, BSC 1005, CHM 1020, ESC 1000, EVR 1001, GLY 1010, OCE 1001, PHY 1020, PHY 2053	3	Note: Check with advisor for requisite information
	Semester Credits	9	

## Semester 4

Course ID	Course Title	Credits	Pre/Co-requisites
EET 1033C*	Electrical Fundamentals	4	
CEN 2211*	C/C++ Programming for Embedded	4	Prerequisite: COP 1334;
	Devices		Corequisite: EET 1033C
Elective	COP2*, CGS 2091, COP 1047C,	4	Note: Check with advisor for requisite information
	COP 1332, CTS 1120, CTS 1134,		
	CTS 1800, CTS 2148C, CTS 2440		
	Semester Credits	12	

### Semester 5

Course ID	Course Title	Credits	Pre/Co-requisites
CEN 2212C*	Introduction to Programing the IoT	4	Prerequisites: CEN 2211 and EET 1033C
CTS 2466C*	Internet of Things (IoT) Development with C#	4	Prerequisite: CEN 2211
Elective	COP2*, CGS 2091, COP 1047C, COP 1332, CTS 1120, CTS 1134, CTS 1800, CTS 2148C, CTS 2440	4	Note: Check with advisor for requisite information
	Semester Credits	12	
	Program Total	60	

Academic Pathway at MDC: The AS in Computer Engineering Technology is a pathway to the <u>BAS in Supervision and Management</u>.  $\star$  Course leads to a <u>College Credit Certificate (CCC) in Internet of Things (IOT) Applications</u>. To learn more about the courses listed see <u>College Catalog</u>.