

**COURSE SEQUENCE GUIDE | FULL-TIME ENROLLMENT**  
**Computer Programming and Analysis - Internet of Things (IoT) Applications**  
**Associate in Science | Code: 25076 | 60 credits**  
**Effective Term: Spring 2025 (2253)**

**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*	Introduction to Computer Technology and Applications	4	
COP 1334*	Introduction to C++ Programming	4	
<b>Semester Credits</b>		<b>14</b>	

**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, 1047C, COP 1334 or COP 2270
<b>Semester Credits</b>		<b>13</b>	

**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	<b>Note:</b> 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	<b>Note:</b> Check with advisor for requisite information
<b>Semester Credits</b>		<b>9</b>	

**Semester 4**

Course ID	Course Title	Credits	Pre/Co-requisites
EET 1033C*	Electrical Fundamentals	4	
CEN 2211*	C/C++ Programming for Embedded Devices	4	Prerequisite: COP 1334; Corequisite: EET 1033C
Elective	CAI*, CEN*, COP*, CTS*, CGS 2091, GEB 1432, PHI 2680	4	<b>Note:</b> Check with advisor for requisite information
<b>Semester Credits</b>		<b>12</b>	

**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	CAI*, CEN*, COP*, CTS*, CGS 2091, GEB 1432, PHI 2680	4	<b>Note:</b> Check with advisor for requisite information
<b>Semester Credits</b>		<b>12</b>	
<b>Program Total</b>		<b>60</b>	

**Academic Pathway at MDC:** The AS in Computer Engineering Technology is a pathway to the [BAS in Leadership and Management Innovation](#). ★ Course leads to a [College Credit Certificate \(CCC\) in Internet of Things \(IoT\) Applications](#). To learn more about the courses listed see [College Catalog](#).