



COURSE SEQUENCE GUIDE | FULL-TIME ENROLLMENT
Networking Services Technology - Network Infrastructure
Associate in Science | Code: 25062 | 60 credits
Effective Term: Fall 2024 (2247)

Semester 1

Course ID	Course Title	Credits	Pre/Co-requisites	CCC-Cisco	CCC-NSA	Industry Certifications
CGS 1060C	Introduction to Computer Technology & Applications	4				
CTS 1134	Networking Technologies	4		✓	✓	CompTIA Network+
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading & writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033 Note: Students must seek advisement for proper mathematics course from discipline chairperson.			
	Semester Credits	14				

Semester 2

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 1120	Cybersecurity Fundamentals	4	Recommended preparation: prior knowledge of networking technologies. Note: Students are highly recommended to take CTS 1134 prior to, or concurrently with CTS 1120. If enrolled in mini terms, students should take CTS 1134 during the first half of the term, followed by CTS 1120 during the ladder half.	✓	✓	CompTIA Security+
CTS 1650	CCNA 1: Cisco Fundamentals	4	Note: Course available during mini terms. Students should take CTS 1650 during the first half of the term, followed by CTS 1651 during the ladder half.	✓		CCNA
CTS 1651	CCNA 2: Routing and Switching	4	Prerequisite: CTS 1650 Note: Course available during mini terms. Students should take CTS 1650 during the first half of the term, followed by CTS 1651 during the ladder half.	✓		CCNA
	Semester Credits	12				

Semester 3

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
Social Science	AMH 2010, AMH 2020, POS 2041	3	Note: Students must satisfy civic literacy requirement by successfully completing AMH 2010, AMH 2020 or POS 2041, which are course options for General Education - Social Sciences. Students are additionally required to achieve a passing score on an approved assessment. Please see Testing Department for examinations and exemptions.			
Humanities	ARH 1000, HUM 1020, LIT 2000, MUL 1010, PHI 2010, THE 2000	3	Note: ENC 1101 is a prerequisite to LIT 2000.			
CTS 1111	Linux +	4		✓		CompTIA Linux+
	Semester Credits	10				

Semester 4

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 2303	Windows Server Administration	4	Recommended preparation: CGS 1060C and CTS 1134 or equivalent knowledge.		✓	
CTS 2652	CCNA 3: Advanced Routing and Switching	4	Prerequisite: CTS 1651	✓		CCNA
Elective	CGS*; CIS*; COP*; CTS* CGS 1560, CIS 1949, CIS 2900, CTS 1145, CTS 1328, CTS 2153	4	Note: While not required, CTS 1145 - Cloud Essentials is highly recommended in preparation for CTS 2143C and CTS 2192C. Program requires a total of 5 elective credits.	CIS 1949 or CIS 2900		
Semester Credits			12			

Semester 5

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 2143C	Server Administration	4	Recommended preparation: server operating systems knowledge.		✓	CompTIA Server+
CTS 2192C	Microsoft Azure Administration	4	Recommended preparation: CTS1145 or knowledge in Azure Fundamentals.		✓	Microsoft Azure Administration Associate
Elective	CGS*; CIS*; COP*; CTS* CGS 1560, CIS 1949, CIS 2900, CTS 1145, CTS 1328, CTS 2153	1-4	Note: Program requires a total of 5 elective credits.	CIS 1949 or CIS 2900		
Natural Science	AST 1002, BSC 1005, CHM 1020, ESC 1000, EVR 1001, GLY 1010, OCE 1001, PHY 1020	3				
Semester Credits			12			
Program Total			60			
				21	24	

Academic Pathway at MDC: The AS in Networking Services Technology - Network Infrastructure is a pathway to the [BS in Information Systems Technology](#). Program courses lead to a [College Credit Certificate \(CCC\) in Cisco Certified Network Associate](#) (Plan code: 66050) and a [CCC in Network Server Administration \(NSA\)](#) (Plan Code: 66035). To learn more about program courses, see the [College Catalog](#). Certain courses will prepare you for in-demand industry certifications and costs of exams may be eligible for reimbursement. You may also accelerate your studies via credit for prior learning or credit for attained industry certifications. [Learn more.](#)

Semester 1

Course ID	Course Title	Credits	Pre/Co-requisites	CCC-Cisco	CCC-NSA	Industry Certifications
CGS 1060C	Introduction to Computer Technology & Applications	4				
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading & writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).			
MAC 1105	College Algebra	3	Prerequisite: MAT1033 Note: Students must seek advisement for proper mathematics course from discipline chairperson.			
	Semester Credits	10				

Semester 2

Course ID	Course Title	Credits	Pre/Co-requisites	CCC-Cisco	CCC-NSA	Industry Certifications
CTS 1134	Networking Technologies	4		✓	✓	CompTIA Network+
CTS 1650	CCNA 1: Cisco Fundamentals	4		✓		CCNA
	Semester Credits	8				

Semester 3

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
Social Science	AMH 2010, AMH 2020, POS 2041	3	Note: Students must satisfy civic literacy requirement by successfully completing AMH 2010, AMH 2020 or POS 2041, which are course options for General Education - Social Sciences. Students are additionally required to achieve a passing score on an approved assessment. Please see Testing Department for examinations and exemptions.			
CTS 1120	Cybersecurity Fundamentals	4	Recommended preparation: prior knowledge of networking technologies. Note: Students are highly recommended to take CTS 1134 prior to, or concurrently with CTS 1120. If enrolled in mini terms, students should take CTS 1134 during the first half of the term, followed by CTS 1120 during the ladder half.	✓	✓	CompTIA Security+
Humanities	ARH 1000, HUM 1020, LIT 2000, MUL 1010, PHI 2010, THE 2000	3	Note: ENC 1101 is a prerequisite to LIT 2000.			
	Semester Credits	10				

Semester 4

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 1651	CCNA 2: Routing and Switching	4	Prerequisite: CTS 1650 Note: Course offered during mini terms. Students should take CTS 1651 during the first half of the term, followed by CTS 2652 during the ladder half.	✓		CCNA
CTS 2652	CCNA 3: Advanced Routing and Switching	4	Prerequisite: CTS 1651 Note: Course offered during mini terms. Students should take CTS 1651 during the first half of the term, followed by CTS 2652 during the ladder half.	✓		CCNA

	Semester Credits	8			
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Semester 5

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 2303	Configuring Windows Servers	4	Recommended preparation: CGS 1060C and CTS 1134 or equivalent knowledge.		✓	
Elective	CGS*; CIS*; COP*; CTS* CGS 1560, CIS 1949, CIS 2900, CTS 1145, CTS 1328, CTS 2153	4	Note: While not required, CTS 1145 - Cloud Essentials is highly recommended in preparation for CTS 2192C. Program requires a total of 5 elective credits.	CIS 1949 or CIS 2900		
	Semester Credits	8				

Semester 6

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 1111	Linux +	4			✓	CompTIA Linux+
Elective	CGS*; CIS*; COP*; CTS* CGS 1560, CIS 1949, CIS 2900, CTS 1145, CTS 1328, CTS 2153	1-4	Note: Program requires a total of 5 elective credits.	CIS 1949 or CIS 2900		
Natural Science	AST 1002, BSC 1005, CHM 1020, ESC 1000, EVR 1001, GLY 1010, OCE 1001, PHY 1020	3				
	Semester Credits	8				

Semester 7

Course ID	Course Title	Credits	Pre/Co-requisites	CCC Cisco	CCC NSA	Industry Certifications
CTS 2143C	Server Administration	4	Recommended preparation: server operating systems knowledge.		✓	CompTIA Server+
CTS 2192C	Microsoft Azure Administration	4	Recommended preparation: CTS 1145 or knowledge in Azure Fundamentals.		✓	Microsoft Azure Administration Associate
	Semester Credits	8				
	Program Total	60		21	24	

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