

INFORMATION TECHNOLOGY, NETWORK ENGINEERING, ASSOCIATE IN APPLIED SCIENCE (DPRN)

Effective: Fall 2016

The Associate in Applied Science – Network Engineering program is a career degree that blends the theoretical with the practical. It is one of several specializations offered through DCCC’s Applied Science Information Technology (IT) career degrees. In this program, students will be trained for employment as networking specialists in the IT industry by learning to install, configure, manage, and troubleshoot Windows and Linux operating systems. Students will also be trained how to troubleshoot network connectivity as well as analyze and implement common networking devices, cabling, and network communication security measures. The material presented in this program provides students with the knowledge and skills necessary to help them prepare for many of the certification exams required for Computing Technology Industry Association (CompTIA), Microsoft (MS) certifications, and Cisco Certified Network Associate (CCNA, Certified Cisco Network Associate).

Program Outcomes

Upon successful completion of this program, students should be able to:

- Install and configure current MS Windows Network operating systems.
- Install and configure current Linux network operating systems.
- Administer, manage and troubleshoot MS Windows operating systems.
- Analyze and implement solutions for problems relating to network cabling, hubs, servers, workstations, and other physical network devices.
- Analyze and implement solutions relating to network security.
- Configure and manage Cisco switches and routers.

Full-Time Academic Plan

First Semester		Hours
ENG 100	English Composition I ^{CR, IL, WC}	3
CS 100	Introduction to Information Technology ^{TC}	3
NET 110	Network Communications ^{TC}	3
NET 115	Microsoft Windows	4
Choose any transferable Diversity and Social Justice (DJ) and Global Understanding (GU) designated behavioral and social science course ^{DJ, GU}		3
Hours		16
Second Semester		Hours
CS 127	Introduction to PC Support	3
CS 128	PC Repair and Maintenance	3
NET 116	Microsoft Hybrid Server: Core Infrastructure	4
COMM 100 or COMM 111	Interpersonal Communication ^{OC} or Public Speaking	3
Select one of the following: ^{OR}		3-4
MAT 120	Modern College Mathematics	
MAT 121	Introduction to Probability and Statistics	
MAT 135	Business Precalculus	
MAT 151	College Algebra	
MAT 152	Precalculus	

MAT 160	Calculus I	Hours
Hours		16-17
Third Semester		Hours
NET 142	Cyber and Network Security Concepts	4
NET 230	Linux Operating Systems I	4
NET 231	Microsoft Hybrid Server II	4
Science Elective with a Lab (Select any transferable Scientific Inquiry (SI) designated science course) ^{SI}		4
Hours		16
Fourth Semester		Hours
IMM 120	Web Page Design and Development	3
NET 210	CCNA CISCO Network Support	6
IT Elective: Select one CS/IMM/NET Course		3-4
Mathematics Elective: Second Course in MAT sequence ¹		3-4
Hours		15-17
Total Hours		63-66

Notes

¹ Mathematics Elective:

Code	Title	Hours
Select second course from one of the following sequences:		
MAT 120 & MAT 121	Modern College Mathematics and Introduction to Probability and Statistics	6
MAT 135 & MAT 136	Business Precalculus and Business Calculus	6
MAT 151 & MAT 152	College Algebra and Precalculus	8
MAT 152 & MAT 160	Precalculus and Calculus I	8
MAT 160 & MAT 161	Calculus I and Calculus II	8

College Academic Learning Goals

- CR Critical Reasoning (<https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#criticalreasoningtext>)
- DJ Diversity and Social Justice (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#DJ_Course_List)
- GU Global Understanding (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#GU_Course_List)
- IL Information Literacy (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#IL_Course_List)
- TC Information Technology (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#IT_Course_List)
- OC Oral Communication (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#OC_Course_List)
- QR Quantitative Reasoning (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#QR_Course_List)
- SI Scientific Inquiry (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#SR_Course_List)
- WC Written Communication (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#WC_Course_List)

Part-Time Academic Plan

Course	Title	Hours
First Semester		Hours
ENG 100	English Composition I	3
CS 100	Introduction to Information Technology	3

NET 110	Network Communications	3
Hours		9
Second Semester		
NET 115	Microsoft Windows	4
Social Science Elective (Select any transferable Diversity and Social Justice (DJ) and Global Understanding (GU) designated social science course)		3
CS 127	Introduction to PC Support	3
Hours		10
Third Semester		
CS 128	PC Repair and Maintenance	3
NET 116	Microsoft Hybrid Server: Core Infrastructure	4
COMM 100 or COMM 111	Interpersonal Communication or Public Speaking	3
Hours		10
Fourth Semester		
Select one of the following:		3-4
MAT 120	Modern College Mathematics	
MAT 121	Introduction to Probability and Statistics	
MAT 135	Business Precalculus	
MAT 151	College Algebra	
MAT 152	Precalculus	
MAT 160	Calculus I	
NET 142	Cyber and Network Security Concepts	4
NET 230	Linux Operating Systems I	4
Hours		11-12
Fifth Semester		
NET 231	Microsoft Hybrid Server II	4
Science Elective (Select any transferable Scientific Inquiry (SI) designated science course)		4
IMM 120	Web Page Design and Development	3
Hours		11
Sixth Semester		
NET 210	CCNA CISCO Network Support	6
IT Elective: Select one CS/IMM/NET Course		3-4
Hours		9-10
Seventh Semester		
Mathematics Elective		3-4
Hours		3-4
Total Hours		63-66

- GU Global Understanding (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#GU_Course_List)
- IL Information Literacy (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#IL_Course_List)
- TC Information Technology (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#IT_Course_List)
- OC Oral Communication (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#OC_Course_List)
- QR Quantitative Reasoning (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#QR_Course_List)
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Career

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- DJ Diversity and Social Justice (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#DJ_Course_List)