

Computer Networking and Technology

Associate in Applied Science Degree in Information Technology
Certificate of Proficiency: Network Engineering Technology

Program **INFO.TECH.AAS**
CIP 110201
Certificate **INFO.TECH.NET.CERT**
CIP 521299



The Computer Networking and Technology associate degree and associated Network Engineering Technology certificate of proficiency, based on guidelines from the Association for Computing Machinery, prepare students for jobs that support computing in a networked environment. These include entry-level positions as PC technicians, network administrators, help desk specialists, technical support specialists, and customer service representatives. The A.A.S. degree may also prepare students for transfer to career-oriented B.S. degree programs in IT administration, network engineering, and computer system support.

PROGRAM OUTCOMES

- Pass industry certifications, including A+, NET+, Linux+, and Security+; Microsoft's MCTS, MCITP, MCSA, and MCSE; and Cisco's CCNA.
- Understand, configure, and install hardware and software, including Internet user software;
- Understand, describe, and apply network protocols and standards;
- Explain computing practices and procedures found in most organizations;
- Use printed and online technical documentation;
- Describe how the Internet works;
- Work effectively individually and in workgroups to install and implement information technology;
- Demonstrate written and oral communication skills.

Admission requires a high school diploma or its equivalent, one year of high school algebra, and computer literacy. Applicants must demonstrate competency in English composition, reading, and mathematics, as determined by placement testing. Students who are required to complete foundations courses must plan their curriculum with an academic advisor.

The A.A.S. in Computer Networking and Technology was not developed as a transfer curriculum; however, students have successfully transferred to, and completed bachelor's degrees at, several technically-oriented institutions including NJIT, Fairleigh Dickinson University, DeVry University, Drexel University, and Pierce College.

The Network Engineering Technology certificate of proficiency is intended to provide the technical material covered in the A.A.S. degree. Certificate coursework may be applied toward the A.A.S. degree.

NOTE: All program listings are subject to periodic updates. Please consult your program advisor, academic division, or www.mccc.edu/programs_degree

A.A.S. Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop OS Administration (2/2)	3
IST —	Computer Concepts requirement (2/2) ¹	3
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
MAT 135	Intermediate Algebra with Applications (4/0) ²	4
NET 103	IT Essentials (2/3)	3
NET 122	Windows Server OS Administration (2/2)	3
NET 130	Routing and Switching Essentials (2/2)	3
THIRD SEMESTER		
ECO 111	Macroeconomics (3/0) ³	3
NET 124	Windows Network Infrastructure Admin. (2/2)	3
NET 212	Introduction to Linux (2/2)	3
NET 230	Scaling Networks (2/2)	3
NET 244	Network Defense and Countermeasures (2/2)	3
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0) ⁴	3
HPE 110	Concepts of Health and Fitness (1/2) [†]	2
NET 126	Windows Directory Service Administration (2/2)	3
NET 239	Connecting Networks (2/2)	3
NET 240	Network Security (2/2)	3
—	General Education elective ⁵	3
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¹ Select from IST 101, 102, or in consultation with an academic advisor.

² Students not intending to transfer may substitute a lower-level mathematics course.

³ May be substituted with another Social Science general education elective.

⁴ May be substituted with another Diversity and Global Perspective general education elective.

⁵ Select course from either Social Science or Humanities general education categories.

[†] **CSW 100 is a preferred alternative**; HPE 111 is an acceptable alternative.

NOTE: In both the degree and certificate programs, one or more NET courses may be substituted with acceptable IST, CIS, COS, EET or SST courses, in consultation with an academic advisor.

Certificate Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 103	IT Essentials (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop OS Administration (2/2)	3
NET 122	Windows Server OS Administration (2/2)	3
NET 124	Windows Network Infrastructure Admin. (2/2)	3
NET 130	Routing and Switching Essentials (2/2)	3
NET 230	Scaling Networks (2/2)	3
NET 244	Network Defense and Countermeasures (2/2)	3
NET —	Program elective ¹	3
—	General Education elective ²	3
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¹ Select from NET 126, 212, 239, 240.

² Students intending to apply certificate coursework towards the A.A.S. degree should select a course from either Social Science, Humanities, or Diversity and Global Perspective general education categories, or MAT 135. (Students not intending to transfer may substitute a lower-level mathematics course.)