

AREA: Information Systems Technology:
Network Engineering Specialization

DEGREE: Associate of Applied Science Degree

LENGTH: Four semesters (two-year) program

PURPOSE: This curriculum is designed to provide skills to students in understanding advanced concepts of designing, installing, administering and repairing computer networks.

OCCUPATIONAL OBJECTIVES: The associate of applied science degree curriculum in information systems technology with a network engineering specialization is designed for students who wish to seek full-time employment as a network administrator, analyst, designer or technician.

TRANSFER GUIDELINES: Transfer opportunities for associate of applied science degrees, if existing, are very specific in nature. Students enrolling in an applied science degree with plans to transfer to a four-year college or university should explore opportunities with their faculty advisor.

RELATED CERTIFICATIONS: In addition to providing a foundation in network engineering, this degree prepares students to obtain entry-level certifications and eventually seek advanced certification in a number of networking technologies. Related entry-level certifications include CompTIA A+ and CompTIA Network+.

PROGRAM REQUIREMENTS. A network engineer must possess detailed knowledge of one or more networking technologies, strong analytical and problem-solving skills and good interpersonal and communications skills. These skills are an integral part of the information systems technology (IST) curriculum. The curriculum includes technical courses in information technology, business-related areas, general education and electives. Instruction is centered on theoretical concepts and practical, hands-on applications key to success in the networking field. Students are strongly encouraged to consult with their faculty advisor in planning their programs and selecting electives. Upon satisfactory completion of the program the graduate will be awarded the associate of applied science degree in information system technology with a network engineering specialization.

SPECIAL NOTE (BRIDGE COURSES): This program is designed for those students who have completed a variety of keyboarding and introductory computer applications courses at the high school level. A student who has not completed the recommended high school courses may enroll in the IST Program by taking

courses designed to bridge the gap. These courses are to be selected by consulting with an IST advisor and may include one or more of the following:

AST 101	Keyboarding I	3 credits
ITE 115	Intro to Computer Applications and Concepts	3 credits

Course#	Title	Credits
First Semester		
ENG 111	College Composition I	3
ITD 110	Web Page Design	3
ITD 130	Database Fundamentals	3
ITN 109	Internet and Network Foundations	3
MTH 151/152	Math for Liberal Arts ¹ (or MTH 163 or 271)	3
SDV 101	Orientation to the IT Professions	1
Total		16
Second Semester		
ENG 112	College Composition II	3
ITE 120	Principles of Information Systems	3
ITN 106	Microcomputer Operating Systems	3
ITP 100	Software Design	3
MTH 151/152	Math for Liberal Arts ¹ (or MTH 271 or 272)	3
	Approved social science elective ²	3
Total		18
Third Semester		
ECO 201/202	Principles of Macro/Microeconomics	3
ENG 115	Technical Writing	3
ITN 107	Personal Computer Hardware and Troubleshooting	3
ITN 200	Admin of Network Resources	3
ITN 260	Network Security Basics	3
PED/HLT	Physical Education (or Health)	2
Total		17
Fourth Semester		
ITN 170	Linux System Administration	3
ITN 201	Admin and Management of Network Infrastructures	3
ITP 251	Systems Analysis and Design	4
	Approved humanities elective ³	3
	Approved ITN/ITP elective ⁴	3
Total		16
Program Total		67

¹ Students planning to transfer to a four-year college are encouraged to take MTH 163 or MTH 271/272.

² Students may select social science elective from the approved List.

³ Student may select humanities elective from the approved list.

⁴ Students may select from ITN 120, ITN 224, ITN 261, ITN 263, ITP 112, ITP 120, ITP 132, ITP 160