Network Administration

Description: The Associate of Applied Science (AAS) in Network Administration prepares students for entry-level employment as network and computer systems administrators, who are responsible for the day-to-day operation of computer networks. They organize, install, and support an organization's computer systems, including local area networks (LANs), wide area networks (WANs), network segments, intranets, and other data communication systems. Courses in the program are closely aligned with entry-level professional certifications in computer systems and network administration.

Industry Certification Preparation:

- CompTIA A+ Certification,
- CompTIA Network+ Certification,
- CompTIA Server+ Certification
- CompTIA Security+ Certification
- Cisco CCNA Certification

Student Learning Outcomes:

Upon completion of the Network Administration degree program, students will be able to:

- Analyze and discuss business concepts, structures, and project management techniques relevant to today's workplace
- Identify theories of group dynamics and hone skills specific to working in and managing groups and teams
- Identify the basic knowledge and practical skills needed to install and support computer operating systems
- Install, configure and manage major network server types, i.e. VoIP (Voice over IP), streaming video, web, database and remote access servers
- Determine the hardware and software needs for enterprise-level networks, including network setup and the costs involved for equipment, staff, and construction
- Configure enterprise-level network devices such as routers, switches and wireless access points
- Install server operating systems to perform various functions (i.e., user accounts, internet access, security gateways and email servers)

Program Entry Requirements: The Network Administration degree program will be open to all interested full-time, part-time, continuing education and professional development students. Students identified as needing developmental course work must satisfactorily complete the appropriate English and mathematics courses as a part of their degree program.

Program of Study and Graduation Requirements: The minimum number of credits required for graduation is 61. A grade point average of 2.0 is necessary for graduation. It is highly recommended that the degree be completed within a three-year period to ensure up-to-date knowledge and skill acquisition.

Course Sequence:

Semester 1

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
CIS 103 - Computer Applications & Concepts		3 credits	Technological Competency
CIS 150 - Network Technology		4 credits	
ENGL 101 - English Composition		3 credits	Writing/Research/Info Lit 1
CIS 105 - Computer Systems Maintenance		4 credits	

Semester 2

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
ENGL 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3 credits	Writing/Research/Info Lit 2
FNMT 118 - Intermediate Algebra or higher Math	For FNMT 118: FNMT 017 or FNMT 019 completed or FNMT 118 (or higher) placement	3 credits	Quantitative Reasoning
MNGT 121 - Introduction to Business		3 credits	
CIS 204 - Fundamentals of Linux and Unix	CIS 105 or CIS 155	3 credits	
CIS 252 - Managing Network Servers	CIS 150	4 credits	

Semester 3

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
SOC 101 - Introduction to Sociology or SOC 115 - Gender and Society or ANTH 112 - Cultural Anthropology	For SOC 115: ENGL 101	3 credits	Cultural Analysis and Interpretation
CIS 106 - Introduction to Computer Programming		4 credits	
CIS 256 - Network Routing and Switching	CIS 150	4 credits	
CIS 259 - Computing and Network Security	CIS 150	4 credits	

Semester 4

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
AET 102 - Science Technology and Public Policy or CHEM 103: Fundamentals of Chemistry (Non-Lab Based) or PHYS 108: Description Astronomy or PHYS 125: Musical Acoustics or EASC 111: Environmental Conservation		3 credits	Scientific Reasoning
ENGL 117 - Group and Team Communication or ENGL 115 - Public Speaking	ENGL 101, which may be taken concurrently	3 credits	Oral Communication/Creative Expression

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
CIS 205 - Database Management Systems	CIS 103 or CSCI 112 or CSCI 118	4 credits	
MNGT 142 - Management Information Systems	MNGT 121	3 credits	
CIS 271 - Information Technology Project Management	CIS 103	3 credits	

Minimum Credits Needed to Graduate: 61

Courses and Completion Sequence

The following courses and sequence of courses is designed for the optimal success and completion of the Network Administration degree/certificate. Any alterations should be discussed with your academic advisor.

Semester 1

Course Number and Name	Credits	Advisory Notes	Course Type
CIS 103 - Applied Computer Applications & Concepts	3 credits	Prerequisite for CIS 205, CIS 271	Fulfills Technological Competency requirement
CIS 150 - Network Technology	4 credits	CIS 150 is prerequisite for CIS 252, CIS 256, and CIS 259, and must be taken in the first semester.	Major Course
ENGL 101 - English Composition I	3 credits	Prerequisite for ENGL 102, and ENGL 117	Fulfills Writing, Research, Info Lit 1 requirement
CIS 105 - Computer Systems Maintenance	4 credits	Prerequisite for CIS 204	Major Course

Semester 2

Course Number and Name	Credits	Advisory Notes	Course Type
ENGL 102 - The Research Paper	3 credits	ENGL 101 is prerequisite ("C" or better)	Fulfills Writing, Research, Info Lit 2 requirement
FNMT 118 - Intermediate Algebra	3 credits	FNMT 017 or FNMT 019 completed or FNMT 118 (or higher) placement is prerequisite	Fulfills Quantitative Reasoning requirement
MNGT 121 - Introduction to Business	3 credits	Prerequisite for MNGT 142	Major Course
CIS 204 - Fundamentals of Linux and Unix	3 credits		Major Course
CIS 252 - Managing Network Servers	4 credits	CIS 150 is prerequisite	Major Course

Semester 3

Course Number and Name	Credits	Advisory Notes	Course Type
SOC 101- Introduction to Sociology or SOC 115 - Gender and Society or ANTH 112 - Cultural Anthropology	3 credits	For SOC 115: ENGL 101 is prerequisite.	Fulfills Cultural Analysis & Interpretation requirement
CIS 106 - Introduction to Computer Programming	4 credits		MAJOR COURSE

Course Number and Name	Credits	Advisory Notes	Course Type
CIS 256 - Network Routing and Switching	4 credits	CIS 150 is prerequisite	Major Course
CIS 259 - Computing and Network Security	4 credits		Major Course

Semester 4

Course Number and Name	Credits	Advisory Notes	Course Type
AET 102 - Science Technology and Public Policy or CHEM 103: Fundamentals of Chemistry (Non-Lab Based) or PHYS 108: Description Astronomy or PHYS 125: Musical Acoustics or EASC 111: Environmental Conservation	3 credits		Fulfills Scientific Reasoning requirement
ENGL 117 - Group and Team Communication or ENGL 115 - Public Speaking	3 credits		Oral Communication/Creative Expression
CIS 205 - Database Management Systems	4credits	CIS 103 is prerequisite.	Major Course
MNGT 142 - Management Information Systems	3 credits	MNGT 121 is prerequisite.	Major Course
CIS 271 - Information Technology Project Management	4 credits	CIS 103, is a prerequisite.	Major Course