

NETWORK AND SYSTEM ADMINISTRATION - ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

Explore More About This Program: <https://cwi.edu/program/network-and-system-administration>

Degree Quick Facts

- **Instructional School:** Science, Technology, and Math
- **Department:** Computer Science and Information Technology
- **Program Code:** NADM.AAS
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Degree Requirements

Course	Course Title	Min Credits
General Education Requirements		
GEM 1 - Written Communication course		3
GEM 2 - Oral Communication course		3
GEM 3 - Mathematical Ways of Knowing course		3
GEM 6 - Social & Behavioral Ways of Knowing course		3
GE Elective course		3
Major Requirements		
NADM 141	Fundamentals of Windows Operating System	3
NADM 143	Network Services	3
NADM 145	Network Design and Security	3
NADM 147	Network Fundamentals and Certification	3
NADM 155	Network Server Management	4
NADM 157	Linux System Administration	4
NADM 159	Security	4
NADM 261	Server Hybrid Infrastructure	4
NADM 263	Server Hybrid Advanced Services	4
NADM 264	Email Systems	4
NADM 266	Database Administration	4
NADM 268	PowerShell and Certification	4
NADM 271	Virtualization Technologies	4
Minimum Credit Hours Required		63

Degree Plan: Fall Start

The course sequence listed below is strongly recommended in order to complete your program requirements. Many Career and Technical Education (CTE) courses have prerequisites and/or corequisites that have been accounted for within this course sequence plan. Please register for your major requirements each semester as shown below using the Student Planning tool in myCWI. Consult your advisor for any questions regarding this plan.

NOTE: The required general education courses may be completed during any semester the student prefers, including summer semesters.

First Year

Fall		Credit Hours
NADM 141	Fundamentals of Windows Operating System	3
NADM 143	Network Services	3
NADM 145	Network Design and Security	3
NADM 147	Network Fundamentals and Certification	3
GEM 3 - Mathematical Ways of Knowing course		3
Total Semester Credit Hours		15

Spring

NADM 155	Network Server Management	4
NADM 157	Linux System Administration	4
NADM 159	Security	4
GEM 1 - Written Communication course		3
GEM 2 - Oral Communication course		3
Total Semester Credit Hours		18

Second Year

Fall

NADM 261	Server Hybrid Infrastructure	4
NADM 263	Server Hybrid Advanced Services	4
NADM 264	Email Systems	4
GEM 6 - Social & Behavioral Ways of Knowing course		3
Total Semester Credit Hours		15

Spring

NADM 266	Database Administration	4
NADM 268	PowerShell and Certification	4
NADM 271	Virtualization Technologies	4
GE Elective course		3
Total Semester Credit Hours		15
Minimum Credit Hours Required		63

Program Learning Outcomes

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

- Install and configure a client operating system and demonstrate proficiency in file permissions, disk management, and peer-to-peer user and group management.
- Perform advanced subnetting with CIDR, create and document network addressing schemes, configure routers and switches for small to medium-sized networks, demonstrate the use of configuration tools, analyze data frames, test and troubleshoot network connectivity, and resolve any issues.
- Install and configure a server operating system, network services, directory services, network printing, and group policy objects.
- Install and configure a Linux operating system, network services within Linux, and file and folder security with Linux.
- Install and configure a secure network environment, identify common security threats, implement cryptography solutions, and install and configure firewalls for perimeter security.
- Install, configure, and troubleshoot domain controllers, directory services, and file services in an on-premises environment and a cloud environment.
- Install, configure, maintain, and troubleshoot a secure email messaging system and client.
- Install, configure, maintain, and troubleshoot a database system.
- Install, configure, and manage a virtual environment using vSphere and Hyper-V to provide high availability.
- Exhibit competencies of Written Communication (GEM 1), Oral Communication (GEM 2), Mathematical Ways of Knowing (GEM 3), Social and Behavioral Ways of Knowing (GEM 6), and other approved three-credit General Education course.