CLOUD COMPUTING AND NETWORKING TECHNOLOGY AAS: 355
Total Credits: 60
Catalog Edition: 2020-2021

Program Description
This curriculum provides students a broad coverage and technical understanding of computer technology, networking and security as well as the communication skills and professionalism required of all entry-level IT professionals. Skills include software and hardware installation, network configuration and diagnostics, security and forensics fundamentals, and virtualization and cloud computing implementation, with a "hands-on" focus on scenarios in which troubleshooting tools must be applied to resolve problems.

Program Outcomes
Upon completion of this program a student will be able to:

• Install, maintain and evaluate computer networks.
• Describe network architecture concepts, including topology, protocols, components, and principles.
• Demonstrate best practices in the use of lab equipment and network hardware.
• Create a detailed plan showing the steps necessary to implement a network security system.
• Test and configure network services, devices, and peripherals.
• Review data and identify relevant evidence using current forensic tools.
• Describe the evolution of cloud computing and major methods of deployment.
• Design and implement cloud applications that can scale up on a VM (Virtual Machine) and out across multiple VMs.

Program Advisors
• Email: networkingprogram@montgomerycollege.edu
• Phone: 240-567-1956

For more information, please visit https://www.montgomerycollege.edu/academics/programs/cloud-computing-and-networking-technology/index.html
To view the Advising Worksheet, please visit https://www.montgomerycollege.edu/documents/counseling-andadvising/advising-worksheets/current-catalog/355.pdf
Suggested Course Sequence

A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor.

First Semester

ENGL 101 - Introduction to College Writing 3 semester hours *

Mathematics Foundation 3 semester hours (MATF)

NWIT 101 - Introduction to the Internet of Things (IoT) 3 semester hours

OR

CMSC 110 - Computer Concepts 3 semester hours

NWIT 105 - Introduction to Cloud Computing 3 semester hours

NWIT 127 - Microcomputer Essentials 3 semester hours

Second Semester

English Foundation 3 semester hours (ENGF)

CMSC 135 - Introduction to Scripting 3 semester hours

OR

CMSC 140 - Introduction to Programming 3 semester hours

NWIT 151 - Introduction to Networking 3 semester hours

NWIT 170 - Network Operating Systems 3 semester hours

NWIT 173 - Network Security 3 semester hours

Third Semester

COMM 108 - Foundations of Human Communication 3 semester hours (GEEL)

OR

COMM 112 - Business and Professional Speech Communication 3 semester hours (GEEL)

CMSC 253 - UNIX/LINUX System Administration 4 semester hours

NWIT 203 - Microsoft Windows Server 3 semester hours

Arts or Humanities Distribution 3 semester hours (ARTD or HUMD)

Fourth Semester

NWIT 204 - Network Virtualization and System Administrator 4 semester hours

NWIT or CMSC or DATA or TECH Elective 3 semester hours

Behavioral and Social Sciences Distribution 3 semester hours (BSSD)

Natural Sciences Distribution with Lab 4 semester hours (NSLD)

NWIT or CMSC Elective 3 semester hours

Total Credit Hours: 60

*ENGL 101/ENGL 101A, if needed for ENGL 102/ENGL 103, or NWIT or CMSC or DATA or TECH elective.