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

2020-2021

Program Advising Guide
An Academic Reference Tool for Students

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CLOUD COMPUTING AND NETWORKING TECHNOLOGY
ASSOCIATE OF APPLIED SCIENCE: 355

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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*

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)*

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*

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.