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.*