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
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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

  OR

  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.