

# Computer Networking Academy

**Location:** Junior and senior-level academy courses are taught at the ARL.

## Summary

The Computer Networking Academy is designed for students that have an interest in expanding their understanding and skills regarding how computer networks are created and maintained. Students will gain the knowledge and skills needed to install, configure, and operate LAN, WAN, and dial access services for small networks (100 nodes or fewer), including but not limited to use of these protocols: IP, IGRP, Serial, Frame Relay, IP RIP, VLANs, RIP, Ethernet, and Access Lists. Students will gain practical hands-on experience in the field of PC networking by working in a laboratory setting with a CISCO-certified instructor.

## Recommended Electives

- Computer Science I - Designing Technology Solutions -- Honors
- Financial Management
- Foundations of Technology

## Prerequisites

- Successful completion of Algebra I/Data Analysis prior to enrolling in academy coursework.

## Successful Academy Students:

- Maintain a C average in all academy coursework.
- Participate in student conferences and job shadowing.
- Complete a large-scale networking project during the senior year.
- Upon completion of academy program, students will be encouraged to sit for the CISCO Certified Network Associate Exam.

| 9th Grade                        | 10th Grade          | 11th Grade                 | 12th Grade                     |
|----------------------------------|---------------------|----------------------------|--------------------------------|
| English 9                        | English 10          | English 11                 | English 12                     |
| Algebra I/Data Analysis or above | Geometry or above   | Algebra II or above        | Mathematics Elective           |
| Science                          | Biology*            | Science                    | Elective                       |
| U.S. History                     | American Government | World History              | Elective                       |
| Lifetime Fitness/Health          | Elective            | Elective                   | Computer Networking II<br>456M |
| Fine Arts                        | Elective            | Computer Networking I 4562 |                                |
| Technology Education             | Elective            |                            |                                |

\* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

## College Articulation

Upon completion of the academy program with grades of B or better, students may be eligible for up to 12 credits at Howard Community College.

## Industry Certification

At the completion of the academy experience, students will be prepared to sit for the CISCO Certified Network Associate exam.

| Sample Career Options          |                           |                         |
|--------------------------------|---------------------------|-------------------------|
| < 4-Year Degree                | 4-Year Degree             | > 4-Year Degree         |
| Cabling Technician             | CISCO Routing Engineer    | Chief Security Officer  |
| Network Administrator          | LAN Specialist            | Network Engineer        |
| Network Maintenance Technician | Network Design Specialist | Network Systems Analyst |
| PC Help Desk Operator          | WAN Specialist            | Security Analyst        |