

Computer Networking Academy Syllabus

<p>Key Information</p>	<p>Computer Networking Academy Cuyahoga Valley Career Center 8001 Brecksville Rd. Brecksville, OH 44141</p> <ul style="list-style-type: none"> • High School Juniors/Seniors and Adults • Two-year Program, 3.5 credits per year, 3-hours per day • Tech Prep Program-Articulations with Cuyahoga Community College and University of Akron • Tech Prep qualifications for earning college credit: Algebra II, 95% Attendance, overall 2.0 GPA and 3.0 GPA in program area. Cisco courses must be passed with a 75% on the online Final Exam. <p>Recommended Prerequisites: Algebra I/II-C or better, 2.5 GPA, Windows Proficient, Keyboarding Proficient</p>
<p>Course/ Program Description</p>	<p>This two-year program covers Information Technology training for careers in PC and Network support encompassing several industry driven certifications: Comptia A+, Network+, Security+, Cisco Systems CCENT/CCNA, and IC3, content is covered. Culminating semester exams will include both an objective final exam along with hands-on skills assessments to demonstrate proficiency.</p> <p>During the first semester of the senior year, students will participate in a 3-week field experience in a related PC/Networking career field. They will be eligible for Early Placement during second semester if they meet all qualifications to begin gaining valuable work experience.</p> <p>Careers: Entry-Level PC Technician, Network Technician, Associate Network Engineer, Network Administrator, Help Desk Specialist, Desktop Support Specialist, etc.</p> <p>Personal Characteristics: This career is for you if you get along well with people, are accurate, precise, detail-oriented, personable, inquisitive, self-motivated and self-disciplined. You will also need to have good hand-eye coordination, good perceptual skills and the ability to concentrate.</p> <p>The Cisco Networking Academy Curriculum: CCNA Discovery is designed for students with basic PC skills and foundational math and problem solving skills. The curriculum offers an engaging learning experience for more visual and kinetic learners. Many interactive activities are embedded in all of the courses to break up the text and help reinforce student comprehension. In addition, a large number of labs encourage additional hands-on practice.</p>
<p>Scope and Sequence</p>	<p>JUNIOR YEAR A+ Hardware and Software Curriculum (Semesters 1 & 2) CCNA Discovery 1 - Networking for Home and Small Business (Semester 1) CCNA Discovery 2 – Working at a Small-to-Medium Business or ISP (Semester 2)</p> <p>ITAC Units:</p>

	<p>Unit 1: Information Technology Basics (Semesters 1 & 2) Unit 2: PC Operating Systems Unit 3: Software Systems Management Unit 4: Computer User Support Unit 16: Hardware Design Operation & Maintenance Unit 17: Fundamentals of Electronics Technology Unit 18: Networking Basics Unit 26: Telecommunications-Basics Unit 19: Network Architectures Unit 25: Wireless Fundamentals Unit 47: Professional Practices Unit 48: Basic Business Concepts Unit 45: Business Law, Ethics and Legal Issues</p> <p>SENIOR YEAR 3 Week Field Experience CCNA Discovery 3 – Networking in the Enterprise (Semester 1) CCNA Discovery 4 – Network Design Principals (Independent Study-Semester 2)</p> <p>ITAC UNITS: Unit 1: Information Technology Basics-continuation (Semesters 1 & 2) Unit 20: Network Operating Systems-Windows 2003 Server, SuSe Linux Unit 21: Wide-Area Networks-Fundamentals Unit 22: Network Management Unit 23: Security Fundamentals Unit 24: Secure Network Management Unit 30: System Installation and Maintenance Unit 31: System Administration and Control Unit 32: Database Management system Basics Unit 44: Business Processes for IT Professionals Unit 46: Technical Writing and Documentation</p>
<p>Course Materials</p>	<p>Web-Based Cisco Networking Academy Courses: http://cisco.netacad.net</p> <p>IT Essentials: PC Hardware and Software v4.1 Students will be able to describe the internal components of a computer, assemble/disassemble a computer system, configure and install an operating system, install printers and file sharing, troubleshoot problems, work with laptops and portable devices, setup basic wireless connectivity, security, and learn about important communication skills and safety/environmental issues.</p> <p>The Cisco Certified Network Associate (CCNA®) Discovery Semesters 1-4 Curriculum provides a comprehensive overview of networking from fundamentals to advanced network applications and services. Theoretical networking concepts are emphasized, network protocols are learned in a layered approach with the OSI and TCP/IP models, along with fundamental concepts of routing with hands-on experience needed to design, install, operate, and maintain networks.</p>

	<ul style="list-style-type: none"> • <i>Hands-On Microsoft Windows Server 2008</i>, M. Palmer, Course Technology, 2009 • <i>Mike Meyers' CompTIA A+ Guide to Managing and Troubleshooting PCs Lab manual, Second Edition</i>, McGraw-Hill, 2007 • <i>Mike Meyers' Network+ Guide to Managing and Troubleshooting Networks</i>, McGraw-Hill, 2004 • <i>Security+ Guide to Network Security 3rd Edition</i>, M. Ciampa, Course Technology, 2009
<p>Evaluation</p>	<p>All students will be evaluated on quizzes, tests, skills exams, labs, competency gain and daily employability grades (e.g., attendance, preparation, attitude, meeting deadlines, participation and performance). The term grade is determined by the following:</p> <p>Tests/Quizzes</p> <ul style="list-style-type: none"> ▪ Quizzes – Announced/Unannounced ▪ Tests – Announced per unit/chapter ▪ Skills Exams – Announced per unit/chapter ▪ Midterm/Final Exam <p>Lab/Theory/Homework</p> <ul style="list-style-type: none"> ▪ Written assignments/homework ▪ Performance ▪ Projects ▪ ITTF competencies ▪ Laboratory assignments ▪ Case studies <p>Employability</p> <ul style="list-style-type: none"> ▪ Participation/cooperation/teamwork ▪ Attendance (tardies, excessive lab exits) ▪ Uniform compliance ▪ Non-disruptive ▪ On task (not disrupting others' work) ▪ Orderly work area /safety <p>Grades issued are based on the A-F scale. All assignments, quizzes, tests, etc. are graded using the standard percentage breakdown of:</p> <p>90 - 100 A 80 - 89 B 70 - 79 C 60 - 69 D 59 - ↓ F</p>
<p>Assessment</p>	<p>CNA prepares students for industry certifications and the end of program state of Ohio assessment. All second year students will take the itWORKS.OHIO exams required for the IT-Networking curriculum.</p>