



Cisco Networking Academy: Maine Profile

Educating the Architects of the Networked Economy

Now in its second decade, Cisco® Networking Academy® has provided more than two million students worldwide with the information technology (IT) and networking skills necessary to compete in the 21st century global economy.

To prepare the Networking Academy for the decade ahead, Cisco has launched innovative new curricula including Cisco Certified Network Associate (CCNA®) Discovery and CCNA Exploration, as well as a new version of IT Essentials called PC Hardware and Software, and updates to the Cisco Certified Network Professional (CCNP®) curriculum. These new courses have been specifically designed to help students be more successful, whether they plan to be IT professionals or are simply seeking a deeper understanding of IT.

Our new courses align to industry certifications, including the recently launched Cisco Certified Entry-Level Technician (CCENT™). In addition to serving as an entry-level certification for employers, CCENT helps meet the new Carl D. Perkins Career and Technical Improvement Act funding requirements.

The new Networking Academy curricula provide seamless educational pathways between secondary and post-secondary institutions and are aligned to national and state education standards for math, science, and language arts. These courses can also help students prepare to pursue degrees related to science, technology, engineering, and math (STEM). In the United States, academies are located in high schools, technical schools, colleges, universities, and community-based organizations with more than 125,000 students enrolled at more than 2300 academies.[†]

As IT continues to be a high-demand job field in the United States, many educational institutions are incorporating IT into their offerings:

- Secondary schools are building pathways for students around the IT career cluster.
- Post-secondary institutions are integrating IT curriculum into degree programs ranging from computer science to networking to business.
- Community colleges and technical schools are providing existing workers with the opportunity to upgrade their skills, pursue additional education, and expand their expertise in technical fields.

Through its proven model of public-private partnerships with education, government, and business, Cisco Networking Academy is addressing the growing need for a pipeline of skilled IT professionals at a time when corporate technology leaders, public sector IT officials, and technology-service-oriented industries are concerned about the lack of a trained technical workforce to fill existing jobs.

[†] Source: AME/MRE FULL Package_10 31 07 Quarterly Metrics_v2 Date: November 28, 2007

An academy has a class currently in session or has taught a class, with at least 3 students, within the last 12 months.

A student is enrolled in a class or has taken a class within the last 12 months.

Learn More

Table 1 lists data about academies in Maine. Table 2 lists information about Networking Academy curricula in Maine, and Table 3 shows information by student education level.

For additional information about Cisco Networking Academy, visit <http://www.cisco.com/go/netacad>

Table 1. Cisco Networking Academy in Maine

Networking Academy students	342
Distinct cumulative academy students (having successfully completed a course)	694
Academy instructors	11
Total estimated cumulative contribution value to Maine academies*	\$573,377

Source: AME/MRE FULL Package_10 31 07 Quarterly Metrics_v2 Date: November 28, 2007

Cumulative students are distinct; therefore, each student is only counted once.

*This estimate includes donations and discounts made to educational institutions implementing Cisco Networking Academy within Maine.

*Sources: AME/MRE reports 1209_190910.31.07 Date: November 30, 2007

Table 2. Networking Academy Curricula in Maine

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	8	0	3	0	0

The above curricula represent the core Networking Academy curricula. Panduit Network Infrastructure Essentials, Java, and UNIX are also available.

Academies often teach multiple curricula and may be counted more than once in this table.

Source: AME/MRE rpt 3087 Date: December 5, 2007

Table 3. Maine Academies and Students by Education Level

Education Level	Number of Maine Academy Students	Percentage of Maine Students	Number of Maine Networking Academies	Percentage of Maine Academies*
Secondary schools	301	88%	9	90%
Community colleges	41	12%	1	10%
Universities	0	0%	0	0%
Other	0	0%	0	0%
Total by education level	342	100%	10	100%

Source: AME/MRE FULL Package_10 31 07 Quarterly Metrics_v2 Date: November 28, 2007

Academies represented in "Other" category include the following: community-based organizations, middle schools, the military, nontraditional educational settings, and post-graduate institutions



Cisco Networking Academy: Workforce Development

If the United States is to remain competitive in this global economy, leading experts believe we must have a trained and educated workforce. And yet the number of U.S. students pursuing careers in science, technology, engineering and math—critical areas for educating the workforce of tomorrow—continues to decline.

Cisco Networking Academy addresses this gap by providing students with the skills needed to succeed in the wide range of careers available today and tomorrow. In addition to integrating IT skills, the Networking Academy also embeds math, science, and language arts skills in the curricula.

IT Occupational Data

Table 4 lists information about IT-related occupations in the United States, and Table 5 lists this information for Maine.

Table 4. Selected IT-Related Occupations in the United States

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006*
	2004	2014	Numeric	Percent		
Computer Support Specialists	518,370	637,560	119,190	22	18,300	514,460
Computer Systems Analysts	486,550	639,500	152,960	31	20,800	446,460
Network and Computer Systems Administrators	278,380	385,250	106,870	38	13,770	289,520
Network Systems and Data Communications Analysts	231,270	357,460	126,190	54	15,340	203,710
Computer and Information Systems Managers	280,290	352,920	72,620	25	12,350	251,210

U.S. Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/oco/oco20024.htm>, based on data availability as of December 2007

*U.S. Department of Labor, Bureau of Labor Statistics, May 2006 State Occupational Employment and Wage Estimates (US), http://stat.bls.gov/oes/current/oes_nat.htm

Table 5. Selected IT-Related Occupations in Maine

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006^
	2004	2014	Numeric	Percent		
Computer Support Specialists	1710	1890	170	10	40	1800
Computer Systems Analysts	1190	1370	180	15	30	1490
Network and Computer Systems Administrators	990	1250	260	26	40	990
Network Systems and Data Communications Analysts	520	740	220	41	30	680
Computer and Information Systems Managers	1030	1150	130	12	30	960

U.S. Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/oco/oco20024.htm>, based on data availability as of December 2007

^ U.S. Department of Labor, Bureau of Labor Statistics, May 2006 State Occupational Employment and Wage Estimates (by state), <http://stat.bls.gov/oes/current/oesrcst.htm>



Maine Student and Graduate Profile

Shortly after Eddie Riddle graduated from high school, he found himself on a fast-track to a career in information technology (IT). Pursuing independent study courses in high school, Eddie was able to earn five technical certifications including CompTIA's A+, Network+, Server+, i-Net+ and ProSoft's CIW Associate. "I have an overwhelming will to learn and am always working to learn more," says Eddie.

Following graduation from high school in 2004, Eddie enrolled in the Cisco® Networking Academy® at York County Community College (YCCC) and less than one year later he landed a job as a junior systems administrator with an IT consulting firm. Just seven months after that, he was promoted to IT Administrator.

By 2006, Eddie had completed the Cisco Certified Network Associate (CCNA®) coursework and received yet another promotion, this time to Engineering Consultant. Eddie attributes his career success in great part to the Networking Academy: "The Networking Academy helped me a lot. It's so much more than switching and routing. It's a great foundation to build on."

**"The Networking Academy helped me a lot. It's so much more than switching and routing.
It's a great foundation to build on."**

Eddie Riddle

Another factor that contributed to Eddie's success was the blended distance learning option that was offered by YCCC. The blended distance learning model allows students to do much of their work outside of the classroom with some of the class lectures delivered through video streaming or other technologies. "It was perfect for me since my work schedule required a lot of travel. The online labs and simulations were wonderful and then I scheduled time to be on campus for other hands-on labs. I got a more personalized environment and all the interaction I needed," says Eddie.

Eddie feels that much of his success can also be attributed to the fact that the high school he attended offered IT courses. He developed an interest in technology early on and was fortunate to have the support of both his parents and his teacher in pursuing IT and networking as a career and being able to leverage the educational pathway from high school directly into YCCC where he could continue his learning and skill development. Eddie is also very grateful to his academy instructor, James Vogt. "He went above and beyond a normal classroom teacher and helped and inspired me," says Eddie.

When asked what advice he would give to those considering the Networking Academy as part of their education and career development Eddie responded, "Develop the will to learn. Technology is always changing and you need to learn on the job all the time. In technology, you can say 'I don't know, but I'll find out.' Then go do it."

Eddie is currently an engineering consultant at Foedus, an IT consulting firm. He also applies his technology skills to refurbish and troubleshoot computers for Grahamtastics Connections, which donates laptops and Internet access to children and young adults with terminal illnesses for use at home or while in the hospital. Eddie has been on the board of directors of Grahamtastics Connections since high school and says "It's a worthwhile cause I'm happy to support."

Eddie is a "sports fanatic" and plays basketball, volleyball, football, and soccer on a regular basis. He's translated that passion into service. Once a week, Eddie and a few of his friends rent a school gym and sponsor a weekly volleyball game for senior citizens to keep them physically active.

Another factor that contributed to Eddie's success was the blended distance learning option that was offered by YCCC. The blended distance learning model allows students to do much of their work outside of the classroom with some of the class lectures delivered through video streaming or other technologies.

For information on the Networking Academy at York County Community College, go to:
<http://www.yccc.edu/catalog/certificate.html>



Active Cisco Networking Academies in Maine

U.S. Congressional District Database

Data for this report was gathered using the U.S. Congressional District Database. This tool was developed to communicate with congressional representatives about Cisco Networking Academy implementation in their home districts. The database maps actively teaching academies by congressional district or by all districts within a state, providing academy name, city, state, and congressional district. The listing by state is updated annually.

Table 6 lists information about academies in Maine congressional districts. Custom reports by congressional districts may be run upon request by contacting Melody Buchanan at Melody.Buchanan@ciscolearning.org.

Table 6. Networking Academies in Maine Congressional Districts

Number of Maine Congressional Districts	Number of Maine Congressional Districts <u>with</u> Networking Academies	Number of Maine Congressional Districts <u>without</u> Networking Academies	% Maine Congressional District Penetration
2	2	0	100%

Academies listed here have taught a class, with at least one student, within the last six months

Source: MRE/Academy Connection, U.S. Congressional District Database Date: January 3, 2008

Active Maine Cisco Networking Academies by Congressional District

* Indicates Cisco Networking Academy Training Center

Academies listed here have taught a class, with at least one student, within the last six months

Source: MRE/Academy Connection, U.S. Congressional District Database Date: December 31, 2007

Congressional District 1

- Marshwood High School (South Berwick)
- MSAD 60 Noble High School (Berwick)
- *York County Community College (Wells)
- Sanford Regional Vocational Center (Sanford)
- Capital Area Technical Center (Augusta)

Congressional District 2

- Lewiston Regional Technical Center (Lewiston)
- Loring Job Corps Center (Limestone)
- Oxford Hills Technical School (South Paris)
- Skowhegan Regional Vocational Center (Skowhegan)
- Region 9 School of Applied Technology (Mexico)



Cisco Networking Academy: Promoting IT Careers

Technology jobs will not only continue to grow, but the role of information technology (IT) workers will continue to evolve since today nearly every company in every industry relies on IT. The skills learned through Cisco Networking Academy lay a critical foundation for almost any profession, even non-IT careers. Networking Academy graduates not only build careers, but also help build businesses, communities, and countries.

If the United States is to remain competitive and continue to innovate in a global economy, we must foster student interest in pursuing technology- and engineering-related careers. A critical strategy in building a technical workforce for the 21st century is the development of seamless programs like Networking Academy that build pathways between secondary and post-secondary institutions and lead to professional career development.

Through the Cisco Promoting IT Careers initiatives, students are introduced to potential careers in IT and networking and given valuable information about pathways to advanced education, certification, and careers.

Visit the Promoting IT Careers Website, <http://www.cisco.com/go/promoteitcareers>, which is dedicated to the following:

- Increasing awareness and interest in opportunities in IT and networking
- Creating interest in IT and networking as a profession
- Helping students establish career goals
- Providing tools and resources to support success as students pursue IT careers
- Creating opportunities for students and graduates to transition from classroom to careers

Five Ways to Promote IT Careers

The following events and activities engage students at all levels of experience. Valuable tools and resources for each event are available through the Promoting IT Careers Website.

1. Host Your Own All Academy Day

All Academy Day is a competition that gives students the chance to show off the skills they have learned in the Networking Academy and to explore career pathways by interacting with IT professionals. Teams of students participate in a series of hands-on events selected from the following options: cable making, component identification, computer building, home networking, quiz bowl, router configuration, TAC/professionalism, and virtual computers. For more information, visit: <http://www.cisco.com/go/allacademyday>

2. Help Students See Your Shadow

Job shadowing can be an important first step in pointing students toward IT careers. You can put on a full **Job Shadow Day** or offer an event as simple as a guest speaker in your classroom. Hearing first-hand about the world of work from IT professionals helps students relate their classroom experiences to the workplace and can inspire students to pursue careers in math, science, and technology. For more information, visit: <http://www.cisco.com/go/jobshadow>

3. Introduce Young Students to the World of IT

Packetville is a public e-learning portal filled with interactive and educational resources for introducing students aged 8 to 14 to the world of IT. Lesson plans, which are aligned with the standards of the International Society for Technology in Education, include community service projects and career exploration. For more information, visit:

<http://www.cisco.com/go/packetville>

4. Connect Students with Employers

The Networking Academy is connecting Networking Academy alumni with employers through the Career Connection job board. For more information, visit: <http://cc.netacad.net/home.do>

5. Explore the Landscape of IT

This series of **Virtual Field Trips** helps Networking Academy students and instructors explore and understand the landscape of IT and prepare for networking careers, all without leaving the classroom. Designed to engage students early on in their Networking Academy experience, the videos cover a range of topics that encourage students to continue their education and begin early to build their career path. A companion module that accompanies each video reinforces the content from the video. For more information, visit: <http://www.cisco.com/go/virtualfieldtrip>

Learn More about IT and Networking Careers

- Certification Magazine, “Hot Jobs & Skills for 2007”
http://www.certmag.com/articles/templates/CM_gen_Article_template.asp?articleid=2521&zoneid=1
- CNNMoney.com, “Skilled Worker Shortage Hurts U.S.”
http://money.cnn.com/2007/01/04/news/economy/jobs_outlook/index.htm
- Job Data Resources
 - U.S. Department of Labor Bureau of Labor Statistics, Occupational Employment Statistics
<http://data.bls.gov/oes/search.jsp>
 - State-Level Job Projections
<http://www.projectionscentral.com>
- John Chambers on the role of technology in education
http://www.forbes.com/opinions/2008/01/23/solutions-education-chambers-oped-cx_sli_0123chambers.html
- “The Quiet Crisis,” Shirley Ann Jackson, Ph.D.; President, Rensselaer Polytechnic Institute
<http://www.rpi.edu/homepage/quietcrisis/>



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