



Cisco Networking Academy: Washington 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 Washington. Table 2 lists information about Networking Academy curricula in Washington, 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 Washington

Networking Academy students	2319
Distinct cumulative academy students (having successfully completed a course)	13,735
Academy instructors	71
Total estimated cumulative contribution value to Washington academies*	\$7,910,514

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 Washington.

*Sources: AME/MRE reports 1212_191010.31.07 Date: November 30, 2007

Table 2. Networking Academy Curricula in Washington

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	42	1	12	1	1

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. Washington Academies and Students by Education Level

Education Level	Number of Washington Academy Students	Percentage of Washington Students	Number of Washington Networking Academies	Percentage of Washington Academies*
Secondary schools	835	36%	22	49%
Community colleges	1438	62%	21	47%
Universities	0	0%	0	0%
Other	46	2%	2	4%
Total by education level	2319	100%	45	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 Washington.

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 Washington

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006^
	2004	2014	Numeric	Percent		
Computer Support Specialists	14,620	18,670	4,050	27	610	12,440
Computer Systems Analysts	15,750	18,260	2,510	15	440	11,060
Network and Computer Systems Administrators	9,420	11,290	1,860	19	300	8,130
Network Systems and Data Communications Analysts	6,750	8,220	1,470	21	240	4,750
Computer and Information Systems Managers	5,150	6,270	1,120	21	220	4,720

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>



Washington Student and Graduate Profile

When Laura Lewkowski was 13, she was intrigued by Web design and when she was older she began studying for her Certified Internet Webmaster (CIW) exam. During this time, Laura realized her weakest area was networking, so she decided to enroll in the Cisco® Networking Academy® at New Market Skills Center in Tumwater. While there, she successfully completed all four Networking Academy courses and passed her Cisco Certified Network Associate (CCNA®) certification exam in June 2004. Upon graduation, Laura enrolled in Northwest University's school of Business Administration and, because of her abilities, was awarded a \$4000 scholarship per semester. In addition, she has been offered a job with the university upon graduation. Laura contributes much of her success to her participation in the Networking Academy.

Laura recalls always planning for the future while attending New Market Skills Center. While in school, she developed a student portfolio and attended several job fairs and lectures on interviewing skills. As a Networking Academy student, she participated in a six-day, 15-hour job-shadowing internship at the Olympia Auto Mall. There, she learned the dynamics of an office environment and the importance of interpersonal and technology skills in the workplace.

To foster her interest in technology while earning her degree, Laura applied to be a volunteer in the Northwest University's information technology (IT) department. Impressed with her abilities and certification credentials, the director of the department not only gave Laura the position, but also offered her a \$4,000 scholarship per semester to be used toward tuition. Laura enjoys her current intern position at Northwest as it allows her to both utilize her networking skills and offset the cost of tuition. "The fact that I have already been offered a full-time job with the college once I graduate has really made all my work in the Networking Academy worth the hours of time and effort."



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Laura Lewkowski

In addition to her studies and work, Laura has also been active in SkillsUSA, a national student leadership organization. In her first year of participation, she took home third place in the state Internetworking competition. The following year she won the gold medal and subsequently attended the National Skills USA competition.

Laura has earned an associate in arts and sciences degree as well as received nine scholarships and awards. In 2007, she was the recipient of a Cisco Networking Academy 4R Award for her achievements in the program. In addition, Laura has earned seven industry certifications which include CCNA and CIW as well as Microsoft Office Specialist in Microsoft Word, Excel, Outlook, Access, and PowerPoint.

Laura finds time to give back to her community by volunteering network assistance at the Boys and Girls Club of America, Wenatchee Skills Center, and Timberland Regional Library. She aspires to earn a degree in business administration, pursue Cisco Certified Network Professional (CCNP®) coursework, and eventually open her own nonprofit IT consulting business.

Laura has earned an associate in arts and sciences degree as well as received nine scholarships and awards. In 2007, she was the recipient of a Cisco Networking Academy 4R Award for her achievements in the program.

“If it hadn't been for the people in my life willing to take an interest and helping me, I wouldn't have tapped into the self-confidence that I have today. I am really thankful for my teachers, classmates, mentors and coworkers.”

For more information on the Networking Academy at New Market Skills Center, visit: <http://www.nmvsc.com/>



Active Cisco Networking Academies in Washington

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 active 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 Washington 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 Washington Congressional Districts

Number of Washington Congressional Districts	Number of Washington Congressional Districts <u>with</u> Networking Academies	Number of Washington Congressional Districts <u>without</u> Networking Academies	% Washington Congressional District Penetration
9	9	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 Washington 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

- Cascadia Community College (Bothell)
- Central Kitsap High School (Silverdale)
- Edmonds Community College (Lynnwood)
- Ingraham High School (Seattle)
- Klahowya Secondary School (Silverdale)
- Lake Washington Technical College (Kirkland)
- North Kitsap Academy (Poulsbo)
- North Shore School Dist--Inglemoor High School (Kenmore)
- Olympic High School (Bremerton)
- *Puget Sound Center for Teaching, Learning & Technology (Bothell)

Congressional District 2

- Sultan School District Cisco Academy (Sultan)

- Whatcom Community College (Bellingham)

Congressional District 3

- Clark College (Vancouver)
- South Puget Sound CC (Tumwater)
- *Education Service District 113 (Olympia)
- New Market Vocational Skill Center (Tumwater)
- White Pass High School (Randle)
- Willapa Valley High School (Menlo)

Congressional District 4

- Big Bend Community College (Moses Lake)
- Columbia Basin Civilian Conservation Corps (Moses Lake)
- White Salmon Valley School District (White Salmon)
- Yakima Valley Community College (Yakima)

Congressional District 5

- Cheney High School (Cheney)
- Central Valley High School (Spokane Valley)
- *Spokane Community College (Spokane)
- *Walla Walla Community College (Walla Walla)
- Walla Walla High School (Walla Walla)

Congressional District 6

- *Bates Technical College Cisco Academy (Tacoma)
- Clover Park Technical College (Lakewood)
- North Beach School District (Ocean Shores)
- Hoquiam (Hoquiam)
- Montesano Cisco Academy (Montesano)
- Olympic College (Bremerton)
- Peninsula College (Port Angeles)
- Sequim School District (Sequim)

Congressional District 7

- Franklin High School (Seattle)

- Nathan Hale High (Seattle)
- *North Seattle Community College - CATC (Seattle)
- Roosevelt High School (Seattle)
- Seattle Central Community College (Seattle)
- South Seattle Community College (Seattle)

Congressional District 8

- *Bellevue Continuing Education (Bellevue)
- Bellevue Comm. College (Credit Local) (Bellevue)
- Newport High School (Bellevue)

Congressional District 9

- Auburn High School (Auburn)
- Digital Bridge Technology Academy (Renton)
- *Green River Community College - Kent Campus (Kent)
- Sea Tac Occupational Skills (Seatac)
- Yelm High School (Yelm)



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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