



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

Networking Academy students	1235
Distinct cumulative academy students (having successfully completed a course)	13,377
Academy instructors	53
Total estimated cumulative contribution value to Colorado academies*	\$6,857,873

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 Colorado.

*Sources: AME/MRE reports 1211_190710.31.07 Date: November 30, 2007

Table 2. Networking Academy Curricula in Colorado

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	25	1	9	0	3

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. Colorado Academies and Students by Education Level

Education Level	Number of Colorado Academy Students	Percentage of Colorado Students	Number of Colorado Networking Academies	Percentage of Colorado Academies*
Secondary schools	432	35%	13	45%
Community colleges	692	56%	13	45%
Universities	99	8%	3	9%
Other	12	1%	1	2%
Total by education level	1235	100%	28	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 Colorado.

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 Colorado

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006^
	2004	2014	Numeric	Percent		
Computer Support Specialists	12,560	18,030	5470	43	700	14,040
Computer Systems Analysts	13,990	20,540	6550	46	810	11,360
Network and Computer Systems Administrators	6380	10,120	3740	58	450	7100
Network Systems and Data Communications Analysts	5820	10,350	4530	77	520	4930
Computer and Information Systems Managers	5290	7420	2130	40	310	4460

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>



Colorado Student and Graduate Profile

For the past ten years, Jami Everett of Colorado Springs has been making a difference in the lives of students and administrators at Pikes Peak Community College. Her work in Cisco® Networking Academy® prepared Jami for an entry level job at Pikes Peak Community College (PPCC) in Colorado Springs and the beginning of a rewarding information technology (IT) career. “The Networking Academy has helped me in so many ways,” says Jami. She is proud to be able to say, “To this day, what I learned in the Networking Academy has allowed me to over-deliver and produce quality results. My involvement with technology has led to the advancement of teaching techniques and expanded computerized programs and degree studies.”

Jami learned of the Networking Academy in her freshman year at college at PPCC. Her work-study job in the computer lab was being eliminated and, to prepare herself for her next job, Jami changed majors and started taking Networking Academy courses. The Networking Academy was a factor not only in Jami being hired by PPCC as a full-time IT Technician but also being able to make an immediate contribution. “The college was converting its technology,” says Jami “and I was able to apply my knowledge of design to assist with implementation of the network infrastructure. Nearly ten years later, I am still using the knowledge learned through the Networking Academy in my daily responsibilities.”

“I think the Cisco program was a lot like hiking to the top of a mountain where some days you couldn’t see the top. I won’t deny that it was hard work, but receiving the certification was one of those times I was very proud of myself and I knew I gave it my all to come out on top. I wouldn’t trade it for the world.”

As an IT professional at Pikes Peak Community College, Jami’s responsibilities include LAN support, IP Telephony, and IP-based video conferencing. Jami is currently on the Communication and Distribution team for IT Support Services at PPCC and has used her Cisco training on a wide variety of Cisco switches and routers. She and her team are currently designing a campus-wide Wi-Fi network and implementing a Cisco IP Telephony solution. Jami asserts that, “The education from the Networking Academy continues to be pertinent in my everyday tasks.” She finds working in the college environment highly rewarding and appreciates being able to see the results of her work immediately. “I love going to work knowing that what I do helps someone else: people pursuing their education and their futures.”

Richard Reynolds, Jami’s academy instructor, says, “Jami is a forward-looking individual who saw the market opportunity along with employment and a program that would enable her to achieve her goals. Through dedication to her classroom and Web-enabled studies, Jami changed her life and found a career. Jami has continued to advance her position through on-the-job training and self-learning. She has set a very high standard for IT technicians at PPCC and throughout the Networking Academy.”

Jami is currently taking classes to finish her associate’s degree. She has already earned her Cisco Certified Network Associate (CCNA®) certification and is considering additional certifications as well as bachelor’s degree options.

When asked what advice she would give others considering enrolling in the Networking Academy, Jami says she can’t stress enough the dedication it takes to complete all the requirements: “I think the Cisco program was a lot like hiking to the top of a mountain where some days you couldn’t see the top. I won’t deny that it was hard work, but receiving the certification was one of those times I was very proud of myself and I knew I gave it my all to come out on top. I wouldn’t trade it for the world.”

For additional information on the Networking Academy at Pikes Peak Community College, visit: <http://www.ppcc.edu/>



Active Cisco Networking Academies in Colorado

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 Colorado 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 Colorado Congressional Districts

Number of Colorado Congressional Districts	Number of Colorado Congressional Districts <u>with</u> Networking Academies	Number of Colorado Congressional Districts <u>without</u> Networking Academies	% Colorado Congressional District Penetration
7	7	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 Colorado 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

- Westwood College Denver South DNS (ACC) (Denver)

Congressional District 2

- Boulder Tec (Boulder)
- DeVry University, Denver (ACC) (Westminster)
- Summit Campus-Colorado Mountain College (Breckenridge)
- Westwood College Denver North Local DNN (ACC) (Denver)
- Westwood College Denver North Regional (ACC) (Denver)

Congressional District 3

- Collbran Job Corps Center (Collbran)
- *Colorado Mountain College (Glenwood Springs)
- Colorado Northwestern Community College (Craig)
- Glenwood Campus- Colorado Mountain College (Glenwood Springs)
- Mesa State College-WCCC (Grand Junction)

- North Conejos (La Jara)
- *Otero Junior College (La Junta)
- Pueblo Community College (Pueblo)
- Pueblo School District #60 (Pueblo)
- San Juan Basin Technical College (Mancos)
- Sargent (Monte Vista)
- *Trinidad State Jr. College - San Luis Valley Campus (Alamosa)
- Trinidad State Junior College (Trinidad)

Congressional District 4

- Lamar Community College (Lamar)
- Loveland High School (Loveland)

Congressional District 5

- Doherty High School (Colorado Springs)
- Falcon High School (Peyton)
- Liberty H.S. (Colorado Springs)
- Mitchell High School (Colorado Springs)
- *Pikes Peak Community College (Colorado Springs)

Congressional District 6

- Arapahoe Community College (Littleton)
- Chatfield Senior High School (Littleton)
- Douglas County Schools/Chaparral HS (Castle Rock)

Congressional District 7

- Pickens Technical Center (Aurora)
- *Red Rocks Community College - Regional (Lakewood)



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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