

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

Networking Academy students	725
Distinct cumulative academy students (having successfully completed a course)	2213
Academy instructors	14
Total estimated cumulative contribution value to Utah academies*	\$1,232,617

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 Utah.

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

Table 2. Networking Academy Curricula in Utah

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	7	0	7	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. Utah Academies and Students by Education Level

Education Level	Number of Utah Academy Students	Percentage of Utah Students	Number of Utah Networking Academies	Percentage of Utah Academies*
Secondary schools	189	26%	3	33%
Community colleges	406	56%	5	56%
Universities	131	18%	1	11%
Other	0	0%	0	0%
Total by education level	725	100%	9	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 Utah.

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 Utah

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006 [^]
	2004	2014	Numeric	Percent		
Computer Support Specialists	5,370	7,560	2,190	40	290	5,470
Computer Systems Analysts	4,690	6,930	2,240	47	280	2,880
Network and Computer Systems Administrators	2,050	3,260	1,210	58	140	2,000
Network Systems and Data Communications Analysts	2,330	4,080	1,750	74	200	1,930
Computer and Information Systems Managers	2,090	3,010	920	44	130	1,750

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/oessrcst.htm>

Utah Student and Graduate Profile

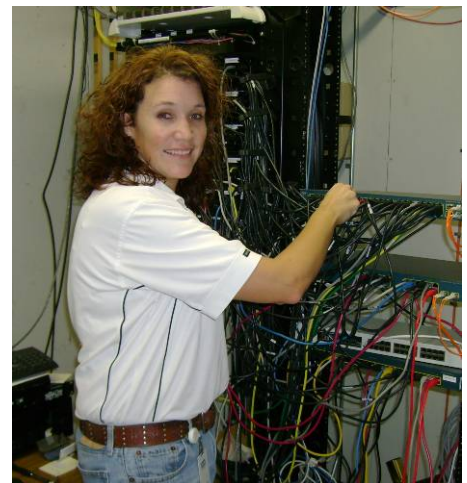
As a single mother with a young son, Rachael Lark worked hard, but never harder than when she was laid off from a major telecommunications provider back in 2002. Rachael was determined to create stability for her son and to give him a better future. So she made a plan, established her goals, and enrolled at Weber State University in Ogden, Utah. It was there that Rachael began taking Cisco® Networking Academy® classes. Within four years she earned a bachelor's of science degree in telecommunications administration and was on her way to earning her Cisco Certified Network Associate (CCNA®) certification. "The Cisco classes were probably the biggest contributors to my self-confidence," says Rachael.

Since Rachel had no prior knowledge or experience in networking, she was nervous about taking the Cisco classes, which were required as part of the telecom program. But Rachael could see that "technology is everywhere you turn, in everything you do. I wanted to be one of the people working in technology and to know the ins and outs of it. I knew that in order to grow my career, I would need to know technology."

Rachael first learned of the Networking Academy through the Weber State telecommunications administration program and her advisor and instructor, Ken Cuddeback. Since Rachel had no prior knowledge or experience in networking, she was nervous about taking the Cisco classes, which were required as part of the telecom program. But Rachael could see that "technology is everywhere you turn, in everything you do. I wanted to be one of the people working in technology and to know the ins and outs of it. I knew that in order to grow my career, I would need to know technology." So with Ken's encouragement and support, Rachael set out to learn networking and telecommunications.

"Watching Rachael grow over the past few years has been an inspiration for me. Seeing her tenacity inspired me to continue working on my Ph.D. knowing that her obstacles were far higher than my own," says Ken.

Being a single mother, working full-time, and attending school full-time made every day a challenge. It was a struggle at times, but Rachael took it day by day, class by class, and paper by paper. "I don't know how I did it," exclaims Rachael, "but I was determined to meet my goal and make a better life for my son and myself." Although the networking courses were challenging, she never gave up, and Rachael is now studying for the Cisco Certified Network Associate (CCNA®) certification exam, which she plans to sit for in 2008. As far as she knows, no woman at Weber State University has earned her CCNA® certification, and Rachael had made up her mind that she will be the first.



In retrospect, Rachael says what she enjoyed most about the Networking Academy was the "experience I gained, the knowledge I never ever imagined I would gain, and the friendships I made." She attributes her success to the course content, instructor, labs, and classmates. "I was able to gain hands-on experience with new and interesting equipment. Without the labs I don't know if I would have been able to fully grasp the ideas. The content and labs gave me a better understanding of what was being taught and to have a knowledgeable instructor available to help out only solidified my success," says Rachael. She especially enjoyed the labs and would deliberately mess something up so she could fix it, experimenting with different paths to solving the problem knowing that real-life situations would require multiple options to problem-solving.

A lot has changed for Rachael. Simply put, Rachael says “I am 100% more confident in everything I do.” She enjoys knowing that she can effectively collaborate with her co-workers as a peer, and that she has earned the respect of her colleagues. Recently married, Rachael is now employed as a telecommunication specialist for MarketStar Corporation and is responsible for the cellular equipment. With MarketStar’s plan to migrate to Cisco Call Manager, Rachael is excited about the experience she will gain assisting in the migration.

Although she was initially nervous about taking the networking courses, Rachel never gave up, and she is now studying for the Cisco Certified Network Associate (CCNA®) certification exam, which she plans to sit for in 2008.

When asked what advice she would give to others who might be interested in the Networking Academy, Rachael says “Don’t give up. No matter how difficult life becomes, don’t give up.”

For more information on the Networking Academy at Webster State University, go to:
<http://departments.weber.edu/ce/pd/Cisco/default.htm>

Active Cisco Networking Academies in Utah

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 Utah 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 Utah Congressional Districts

Number of Utah Congressional Districts	Number of Utah Congressional Districts <u>with</u> Networking Academies	Number of Utah Congressional Districts <u>without</u> Networking Academies	% Utah Congressional District Penetration
3	3	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 Utah 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

- Bridgerland ATC (Logan)
- Davis ATC (Kaysville)
- Layton High School (Layton)
- Salt Lake City School District Technology Center (Salt Lake City)
- *Weber State University (Ogden)

Congressional District 2

- Jordan Career and Technical Education Center (Sandy)
- Salt Lake/Tooele ATC (Salt Lake City)
- Southwest ATCSR (Cedar City)

Congressional District 3

- Salt Lake Community College (Salt Lake City)
- UCAT Mountainland (Orem)

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/>



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. Mind Wide Open is a trademark of Cisco Networking Academy.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0711R)