



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

Networking Academy students	1334
Distinct cumulative academy students (having successfully completed a course)	4331
Academy instructors	53
Total estimated cumulative contribution value to Nebraska academies*	\$2,917,887

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 Nebraska.

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

Table 2. Networking Academy Curricula in Nebraska

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	24	2	15	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. Nebraska Academies and Students by Education Level

Education Level	Number of Nebraska Academy Students	Percentage of Nebraska Students	Number of Nebraska Networking Academies	Percentage of Nebraska Academies*
Secondary schools	734	55%	24	77%
Community colleges	520	39%	5	17%
Universities	80	6%	2	7%
Other	0	0%	0	0%
Total by education level	1334	100%	31	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 Nebraska.

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 Nebraska

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006 [^]
	2004	2014	Numeric	Percent		
Computer Support Specialists	3760	4460	690	18	120	3660
Computer Systems Analysts	3700	4700	1000	27	140	2730
Network and Computer Systems Administrators	1500	2020	530	35	70	1670
Network Systems and Data Communications Analysts	2030	3040	1010	49	130	1730
Computer and Information Systems Managers	1780	2190	410	23	70	1440

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/oesncst.htm>



Nebraska Student and Graduate Profile

When Mobius Communications Company, a high-speed Internet service provider for businesses and homes throughout western Nebraska, contacted Hemingford High School looking for a part-time employee, instructors in the Cisco® Networking Academy® knew Stephen Stewart would be an excellent fit for their company. In 2002 Stephen, then a freshman at Hemingford High school, was given the opportunity to tour Mobius’ facilities and interview with the general manager. This ultimately led him to a position as an information systems technician.

Stephen became interested in technology at an early age when he installed a simple Ethernet network in his home with a hub and two computers. His curiosity led him to seek out a rigorous, technology-oriented class: the Cisco Networking Academy. In 2003, Stephen began the Cisco Certified Network Associate (CCNA®) courses at Hemingford High School. He says “the hands-on laboratory assignments meshed well with the textbook theory to make the materials and concepts understandable and fun.”

In addition to his studies at Hemingford, Stephen also worked part time at Mobius Communications. “Utilizing techniques, concepts, and protocols gained from four semesters of Networking Academy CCNA training, I’ve helped my company’s networks become more efficient, reliable, and cost-effective. I have found the fundamental knowledge of IP subnetting, TCP/IP, the OSI reference model, routing protocols, and VLANs very helpful in making our cross-platform technology reach its potential.”

“Utilizing techniques, concepts, and protocols gained from four semesters of Networking Academy CCNA training, I’ve helped my company’s networks become more efficient, reliable, and cost-effective.”

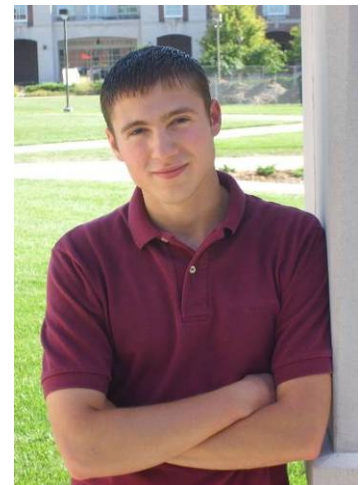
Stephen Stewart

Stephen graduated from Hemingford High School in 2006, obtained his CCNA and A+ certifications, and was accepted to the JD Edwards Honors Program at the University of Nebraska-Lincoln where he is currently studying computer engineering.

Stephen also works part-time at Mobius Communications implementing new technology, undertaking research and development, troubleshooting end user problems, and planning network expansions within their growing organization. “The training I received in the Networking Academy’s CCNA class has been instrumental in enhancing my skills and the efficiency of Mobius’ information technology.”

After completing his undergraduate degree, Stephen plans to pursue his Cisco Certified Network Professional (CCNP®) certification. His ultimate goal is to become a network engineer or system administrator for a Fortune 500 company.

For more information on the Cisco Networking Academy at Hemingford High School, visit: <http://hemingfordschools.org/>





Active Cisco Networking Academies in Nebraska

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 Nebraska 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 Nebraska Congressional Districts

Number of Nebraska Congressional Districts	Number of Nebraska Congressional Districts <u>with</u> Networking Academies	Number of Nebraska Congressional Districts <u>without</u> Networking Academies	% Nebraska 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 Nebraska 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

- Beatrice Public Schools (Beatrice)
- Blair High School (Blair)
- Northeast Community College (Norfolk)
- South Sioux City (South Sioux City)
- Southeast Community College (Milford)
- Tann Academy (Norfolk)
- Tecumseh Public School (Tecumseh)
- Wayne State College (Wayne)

Congressional District 2

- *Applied Information Management Institute - (Aim) (Omaha)
- Bellevue East High School (Bellevue)
- Bellevue West High School (Bellevue)
- Daniel J Gross High School (Omaha)
- Elkhorn Public Schools (Elkhorn)

- King Science & Technology Magnet (Omaha)
- Metro Community College (Omaha)
- Millard South High School (Omaha)
- Omaha North HS (Omaha)
- Omaha South High School (Omaha)
- Ralston High School (Ralston)
- Westside School (Omaha)

Congressional District 3

- Alliance High School Cisco Academy (Alliance)
- Aurora Public School (Aurora)
- Bayard High School Cisco Academy (Bayard)
- Central Community College (Grand Island)
- Chadron High School Cisco Academy (Chadron)
- Chadron State College Cisco Academy (Chadron)
- Columbus Public Schools (Columbus)
- Grand Island Northwest High (Grand Island)
- Grand Island Public Schools (Grand Island)
- Hay Springs High School Cisco Academy (Hay Springs)
- Mid-Plains Community College (McCook)
- Ord Public Schools (Ord)
- *Educational Service Unit 10 (Kearney)
- *Western Nebraska Community College (Scott's Bluff)



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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