



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

| | |
|--|-------------|
| Networking Academy students | 313 |
| Distinct cumulative academy students (having successfully completed a course) | 1524 |
| Academy instructors | 17 |
| Total estimated cumulative contribution value to Wyoming academies* | \$1,412,877 |

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 Wyoming.

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

Table 2. Networking Academy Curricula in Wyoming

| Curriculum | CCNA® | CCNP® | IT Essentials | Security | Wireless |
|--|--------------|--------------|----------------------|-----------------|-----------------|
| Number of academies by curriculum | 11 | 1 | 2 | 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. Wyoming Academies and Students by Education Level

| Education Level | Number of Wyoming Academy Students | Percentage of Wyoming Students | Number of Wyoming Networking Academies | Percentage of Wyoming Academies* |
|---------------------------------|---|---------------------------------------|---|---|
| Secondary schools | 178 | 57% | 6 | 54% |
| Community colleges | 131 | 42% | 5 | 42% |
| Universities | 0 | 0% | 0 | 0% |
| Other | 6 | 2% | 1 | 4% |
| Total by education level | 313 | 100% | 12 | 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 Wyoming.

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 Wyoming

| Occupation | Employment | | Employment Change | | Average Annual Openings | Occupational Employment as of May 2006 [^] |
|--|------------|------|-------------------|---------|-------------------------|---|
| | 2004 | 2014 | Numeric | Percent | | |
| Computer Support Specialists | 430 | 540 | 110 | 26 | 20 | 410 |
| Computer Systems Analysts | 210 | 280 | 70 | 33 | 10 | 250 |
| Network and Computer Systems Administrators | 310 | 430 | 130 | 41 | 20 | 360 |
| Network Systems and Data Communications Analysts | 250 | 420 | 170 | 68 | 20 | 130 |
| Computer and Information Systems Managers | 260 | 340 | 80 | 30 | 10 | 220 |

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>



Wyoming Student and Graduate Profile

Richard Rohde has achieved a level of success that would have eluded most people given the extraordinary difficulties and setbacks he has experienced. At 25 years of age, Richard has battled Hodgkin’s Lymphoma, skin cancer, the death of his father, the loss of his family home, the resulting separation from surviving members of his family, and brief periods of homelessness. Despite all these challenges, Richard received his undergraduate degree, earned a number of industry certifications, and is closing in on earning his Cisco® Certified Network Associate (CCNA®) certification passing three out of the four Cisco Certified Network Professional (CCNP®) exams.

When Richard was a senior at Dubois High School, a counselor told him about the new Cisco Networking Academy® that was starting up at the school. Richard had been interested in computer technology for quite some time, playing video games and helping teachers after school with their computer needs, so he decided to give it a shot. “Doing these things really spiked my interest in technology” says Richard. But around the same time, he was diagnosed with Hodgkin’s Lymphoma. Because of his weakened immune system and the chemotherapy he was undergoing, Richard was home-schooled for much of the year and could not attend school with his fellow classmates. With the help of his instructors who would carefully disinfect the equipment, Richard was able to complete the labs after school hours when there were fewer students around.

Because of his weakened immune system and the chemotherapy he was undergoing, Richard was home-schooled for much of the year and could not attend school with his fellow classmates. He did, however, go to school after hours, when there were fewer students around, to complete the labs. His instructors would disinfect the equipment to make it as safe and sterile an environment for Richard as possible.

After high school, Richard took a few Networking Academy classes at the Central Wyoming College and worked as an academy lab tech, tutoring academy students in lower grade levels, and serving as an academy teacher’s aide.. When he transferred to the Montana Tech of the University of Montana in Butte, he continued taking Networking Academy classes. In May 2007, Richard graduated with a bachelor of science degree in information technology and design. Richard attributes his past accomplishments to his good attitude, work ethic, and easy-going personality. He is a hard worker who once he sets his mind on doing something, tries his best to carry it out.

When asked what he enjoyed most about the Networking Academy, Richard replies: “The labs, instructors, and fellow classmates. They all contributed to a great learning experience” he says. “The labs were hands-on and I think they gave me skills that will make me marketable in the job market” says Richard. His instructors, in particular, were a great help: “They were interested in me as a person and wanted me to excel in my education.” In fact, it was his academy instructor, Martha Davey, who referred Richard to an internship that eventually led to full-time employment. It was also Martha who told Richard about a position that was vacant at Central Wyoming College.

As a result of both of these referrals, Richard is now an IT onsite analyst with Brunton, Inc., with responsibilities related to help desk, desktop support, and hardware maintenance. In addition, Richard serves as a Cisco adjunct instructor at Central Wyoming College, where he teaches the CCNA curriculum. “The Cisco Networking Academy has given me opportunities I would not otherwise have had,” says Richard.



When asked what he would say to others who may be interested in the Cisco Networking Academy, Richard replies “I think that it’s a very good program. . . . It gives you skills that today’s employers want to see in their new hires. The Networking Academy has given me the foundation in technology that I need for today’s world.” Richard’s goal is to become an IT manager and is now working toward obtaining his CCNA certification and has plans to take the CCNP exam as well.

When Richard is not working, he enjoys playing video games, Frisbee golf, fishing, boating, hunting, watching the Green Bay Packers.

For more information on the Networking Academy at Central Wyoming College, visit: www.cwc.edu



Active Cisco Networking Academies in Wyoming

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 Wyoming 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 Wyoming Congressional Districts

| Number of Wyoming Congressional Districts | Number of Wyoming Congressional Districts <u>with</u> Networking Academies | Number of Wyoming Congressional Districts <u>without</u> Networking Academies | % Wyoming Congressional District Penetration |
|---|--|---|--|
| 1 | 1 | 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 Wyoming 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 – At Large

- Buffalo High School (Buffalo)
- Campbell County (Gillette)
- *Central Wyoming College (Riverton)
- Cheyenne Central Academy (Cheyenne)
- Eastern Wyoming College Cisco Academy (Torrington)
- Goshen County School District Local Academy (Torrington)
- KWHS Networking Academy (Casper)
- LCCC Cisco Academy (Cheyenne)
- NWCCD Sheridan College (Sheridan Campus) (Sheridan)
- Riverside High School (Basin)
- *Sheridan County School District (Ranchester)
- Sheridan High School (Sheridan)
- Uinta BOCES 1 Education Center (Evanston)
- *Casper Regional Networking Academy (Casper)



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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