



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

Networking Academy students	2445
Distinct cumulative academy students (having successfully completed a course)	7760
Academy instructors	67
Total estimated cumulative contribution value to Arkansas academies*	\$ 4,689,495

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 Arkansas.

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

Table 2. Networking Academy Curricula in Arkansas

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	33	3	20	2	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. Arkansas Academies and Students by Education Level

Education Level	Number of Arkansas Academy Students	Percentage of Arkansas Students	Number of Arkansas Networking Academies	Percentage of Arkansas Academies*
Secondary schools	1076	44%	14	38%
Community colleges	1051	43%	19	51%
Universities	318	13%	4	11%
Other	0	0%	0	0%
Total by education level	2445	100%	37	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 Arkansas.

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 Arkansas

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006^
	2004	2014	Numeric	Percent		
Computer Support Specialists	3010	4220	1220	40	160	3360
Computer Systems Analysts	1690	2430	740	44	90	1800
Network and Computer Systems Administrators	1450	2220	780	53	90	1370
Network Systems and Data Communications Analysts	780	1240	460	59	60	800
Computer and Information Systems Managers	1180	1690	510	43	70	950

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>



Arkansas Student and Graduate Profile

As a former crop dusting pilot, Gil Freitas may have had his “head in the clouds,” but when it came time to change careers, his feet were firmly planted on the ground. Originally from Portugal, Gil developed an interest in flying at a young age, but due to a spinal condition he was not eligible to join the Portuguese Air Force as he had hoped. Undaunted and determined to fly, Gil moved to Brazil to fly in the Amazon and then began piloting crop-dusting planes in other areas of the country. Later, he joined his Brazilian friend in Memphis, Tennessee to help start a crop-dusting business, but his friend’s untimely death only two short months after his arrival caused Gil to re-think his plans. He decided to stay in the United States to learn English and took some computer classes. When a Cisco® Networking Academy® started at Mid-South Community College (MSCC) in nearby West Memphis, Arkansas, Gil enrolled and was soon on his way to a career in information technology (IT).

Gil credits his flying experience with giving him an “aerial” perspective on how to advance along an IT career path. He quickly recognized the value of having networking knowledge, which was a common requirement in many job descriptions, and that a Cisco certification was a “must have” for career advancement. While taking the Networking Academy classes at Mid-South, Gil further developed his technical skills by working as an IT technician collaborating with others to set up the school’s network, all without the benefit of any prior networking experience.

Gil says the Networking Academy experience gave him a strong foundation, and he is convinced that it was a major factor in his being offered the position of Director of Information Technology at East Arkansas Community College in Forrest City, Arkansas.

Since that time, Gil has completed Cisco Certified Network Associate (CCNA®), Cisco Certified Network Professional (CCNP®), and Fundamentals of Network Security courses. Gil says the Networking Academy experience gave him a strong foundation, and he is convinced that it was a major factor in his being offered the position of Director of Information Technology at East Arkansas Community College in Forrest City, Arkansas. As Director of IT, Gil manages four staff members and is responsible for most IT-related issues at the college. Despite working in an academic setting, Gil retains a practical orientation and would encourage prospective students to “maintain a working environment perspective and ask for real-world examples.”

Gil says his academy instructor Bill Vance encouraged and inspired students to learn, promoted teamwork as well as individual effort, and suggested that students bring in real-world situations. “Bill presented the lessons in an understandable way that encouraged beginning students to continue, and was always available for extra help,” says Gil. Although Gil has graduated, he keeps in touch with Bill and, as colleagues, they exchange experiences and information.

Bill says of Gil, “He is successful because he continues to expand his knowledge in IT by always looking for new solutions and reading about new methods of addressing issues. Gil understands that this career field is ever-changing and he is willing to adapt to new technologies as they develop.”

Gil is an insatiable lifelong learner. He is currently taking graduate-level courses in transport and logistics at Embry-Riddle Aeronautical University and, in his spare time, he is learning quantum



physics and getting involved in green technologies and renewable resources. Gil attributes his success to persistence and a desire to learn. From Portugal to Brazil to the United States, Gil has worked hard, followed his passion, and creating his own opportunities. Even if his head was in the clouds, he planted his feet firmly in the Networking Academy, and once he was there his career in IT took off.

For more information on the Networking Academy at Mid-South Community College, visit: <http://www.midsouthcc.edu/>



Active Cisco Networking Academies in Arkansas

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 Arkansas 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 Arkansas Congressional Districts

Number of Arkansas Congressional Districts	Number of Arkansas Congressional Districts <u>with</u> Networking Academies	Number of Arkansas Congressional Districts <u>without</u> Networking Academies	% Arkansas Congressional District Penetration
4	4	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 Arkansas 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

- *Arkansas State University Mountain Home (Mountain Home)
- Arkansas State University Technical Center (Marked Tree)
- Black River Technical College (Pocahontas)
- Mid-South Community College (West Memphis)
- *Mid-South Community College Local (West Memphis)
- Mountain Home High School (Mountain Home)
- North Central Vocational Center (Leslie)
- Paragould High School (Paragould)
- Turrell HS (Turrell)
- University of Arkansas Community College At Batesville (Batesville)

Congressional District 2

- *Arkansas State University - Beebe - Regional (Beebe)
- Army National Guard Professional Education Center (North Little Rock)

- Bryant High School (Bryant)
- Conway Area Career Center (Conway)
- Hall Cisco (Little Rock)
- North Pulaski High School (Jacksonville)
- *Pulaski Technical College (North Little Rock)
- Sylvan Hills High School (Sherwood)

Congressional District 3

- Lincoln Consolidated School District (Lincoln)
- *North Arkansas College (Harrison)
- North West Arkansas Community College (Bentonville)
- *University of Arkansas - Fort Smith (Fort Smith)

Congressional District 4

- Hope High School (Hope)
- Cossatot Community College of the University of Arkansas (De Queen)
- Hot Springs School District (Hot Springs)
- Magnolia Public Schools (Magnolia)
- National Park Community College (Hot Springs)
- Ouachita Technical College (Malvern)
- Prescott High School (Prescott)
- South Arkansas Community College (El Dorado)
- *Southern Arkansas University - Regional (Magnolia)
- Southern Arkansas University Tech (Camden)
- UAM-College of Technology Crossett (Crossett)



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)