



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

Networking Academy students	1110
Distinct cumulative academy students (having successfully completed a course)	3868
Academy instructors	29
Total estimated cumulative contribution value to Mississippi academies*	\$2,315,086

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 Mississippi.

*Sources: AME/MRE reports 1210_190810.31.07 Date: November 30, 2007

Table 2. Networking Academy Curricula in Mississippi

Curriculum	CCNA®	CCNP®	IT Essentials	Security	Wireless
Number of academies by curriculum	13	1	4	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. Mississippi Academies and Students by Education Level

Education Level	Number of Mississippi Academy Students	Percentage of Mississippi Students	Number of Mississippi Networking Academies	Percentage of Mississippi Academies*
Secondary schools	322	29%	5	29%
Community colleges	722	65%	11	65%
Universities	78	7%	1	6%
Other	0	0%	0	0%
Total by education level	1110	100%	17	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 Mississippi.

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 Mississippi

Occupation	Employment		Employment Change		Average Annual Openings	Occupational Employment as of May 2006 [^]
	2004	2014	Numeric	Percent		
Computer Support Specialists	3310	4250	940	28	140	2410
Computer Systems Analysts	1570	2020	460	29	60	1310
Network and Computer Systems Administrators	1040	1430	390	37	50	1230
Network Systems and Data Communications Analysts	700	1000	300	42	40	390
Computer and Information Systems Managers	1040	1310	270	25	50	860

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>



Mississippi Student and Graduate Profile

Sometimes finding the right career feels more like climbing a mountain than traveling on a highway. After dropping out of high school, earning his GED, and working different jobs in various fields, Charles Morris wondered if he would ever find his niche. In 2007, as a result of some influence and inspiration from his wife and father-in-law, Charles enrolled at Itawamba Community College (ICC) in Tupelo and starting taking Cisco® Networking Academy® classes. By July of that year, Charles had landed a full-time job as a network and security administrator for a local employer. He has completed all of his coursework and will receive his associate of applied science degree in LAN/computer servicing technology in May 2008.

Interest in networking technology seems to run in the family. Charles first heard of the Networking Academy from his wife Emily who graduated from Itawamba Community College in 1999 with two degrees, one in computer networking technology and one in computer programming technology. Charles says it was tough balancing a full-time job at a furniture factory, school, and family time, but that in the end, “It was very worth the stress!” He enjoyed the hands-on experience of programming routers and working with classmates who shared his technology interests.

“Without the technical education I received through the Networking Academy, I would not have this awesome job working in an environment I have grown to love.”

Charles Morris

Charles says his wife and father-in-law were significant factors in his success. Emily is a hardware coordinator for a local computer repair business and her father is a self-employed technician whom Charles often helped on home theater, wireless, and PC installations. That’s when the road straightened out for Charles with the realization that he had found his career. “My wife and her father really influenced me by sharing what they were doing. The more I learned, the more I wanted to know. I realized computer networking is something I knew and something I could do and still stay in the same geographic area.”

Besides his wife and father-in-law, Charles credits his instructors as a significant factor in his success with the coursework. “They were more than willing to help out including one-on-one time to break complex ideas into more understandable ones. It made the learning process easier,” says Charles. He also appreciated the flexibility the online curriculum provided: “Having the curriculum available online to read and study was especially helpful for me with a family and full-time job. It left the decision with me as to what time I had to dedicate myself to it.”

In terms of personal qualities, Charles believes his “strong work ethic, a drive to succeed, and lots of studying” were important factors in his success at the academy. Charles advises others interested in the Networking Academy to “Study and stick with it. It gets hard at times, but is worth it in the end.” When Charles is not working, most of his spare time is spent with family, working in the yard, playing video games, and going to concerts.



Charles is currently working as a network and security administrator for Central Service Association (CSA), a not-for-profit association that offers consulting, networking, Internet, hardware, and software sales to more than 100 utilities in eight states. Charles applied and was selected for the position after CSA contacted academy instructors about the job opening.

“My wife and her father really influenced me by sharing what they were doing. The more I learned, the more I wanted to know. I realized computer networking is something I knew and something I could do and still stay in the same geographic area.”

Charles Morris

Not only does his position give Charles the opportunity to continue learning on the job, he also has the flexibility to finish his coursework and, after six months on the job, CSA will reimburse Charles for the cost of acquiring certifications, including the Cisco Certified Network Associate (CCNA®), which Charles intends to earn in 2008.

“I have applied the skills learned through the Networking Academy with my job responsibilities, including monitoring our current WAN connections, installing and maintaining firewalls, routers, and spyware/filtering equipment, and helping customers through any problems they encounter. Without the technical education I received through the Networking Academy, I would not have this awesome job working in an environment I have grown to love.”

Charles enjoys his job and does not see himself leaving any time soon. His career path now is looking more and more like an information highway.

For information on the Networking Academy at Itawamba Community College: www.iccms.edu



Active Cisco Networking Academies in Mississippi

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 actively teaching 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 Mississippi 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 Mississippi Congressional Districts

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

- East Mississippi Community College --- Mayhew Camp (Mayhew)
- Itawamba Community College (Tupelo)

Congressional District 2

- Copiah-Lincoln Community College (Wesson)
- Alcorn State University (Lorman)
- Hinds Community College --- Raymond Campus (Raymond)

Congressional District 3

- Holmes Community College--Ridgeland Campus (Ridgeland)

Congressional District 4

- Harrison High School (Gulfport)
- *Jones County Junior College - Local (Ellisville)
- Jones County Junior College - Regional (Ellisville)
- *Long Beach High School (Long Beach)

- Mississippi Gulf Coast Community College Jefferson (Gulfport)
- Mississippi Gulf Coast Community College Perkinston (Perkinston)
- Moss Point Separate School Programs (Moss Point)
- North Forrest High School (Hattiesburg)
- Pearl River Community College (Poplarville)
- Pearl River Community College (Hattiesburg))
- Petal School District Career & Technical Center (Petal)
- University of Southern Mississippi (Hattiesburg)



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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