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ABSTRACT

The Southeast Consortium for Advanced Network Technologies Education (SCANTE) is a partnership between two-year colleges, four-year colleges and universities, middle/secondary schools, and the business community in Mississippi and elsewhere. SCANTE goals include: (1) to identify and evaluate trends, applications, innovations, and curricula in the emerging network technologies; (2) to develop articulation of the two-year degree in network technology with a four-year degree program; (3) to disseminate to educators and their students emerging network technology trends, applications, innovations, and curricula; (4) to promote interest by secondary and postsecondary students in computer network technology, computer servicing technology, and telecommunications technology careers as well as the mathematics and science courses necessary for success in these careers; (5) to promote competency of secondary/postsecondary faculty who teach, implement, or administer curricula in emerging technologies; (6) to establish and facilitate an infrastructure to provide student work-based learning opportunities in emerging network technologies; and (7) to establish and facilitate an infrastructure to build a network of education, government and business entities that will support the development of quality programs to educate (and re-educate) the information technology workforce. Funding from the National Science Foundation Advanced Technological Program (ATE) and others has facilitated movement toward these goals. Slide presentation is appended. (PGS)

The Southeast Consortium for Advanced Network Technologies Education

1997 to the Present
Jones County Junior College
Ellisville, Mississippi 39437
http://www.partnership.jcjc.cc.ms.us/

Principal Investigator: Catherine Perry Cotten, Ph.D.
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The mission of the Jones County Junior College (JCJC) Southeast Consortium for Advanced Network Technologies Education (SCANTE) is to embrace existing and emerging network technologies and integrate them into the two-year college environment as their use becomes beneficial to the information technology workforce. SCANTE is a partnership between two-year colleges, 4-year colleges and universities, middle/secondary schools, and the business community. The activities of SCANTE are carried out through funding from the National Science Foundation Advanced Technological Education Program (ATE) under the leadership of Dr. Catherine Perry Cotten, JCJC's Project Director for the NSF grants. Funding has also been received from The Jones County Junior College, The Phil Hardin Foundation, Mississippi State Department of Education, COHO, matching contributions from each of the participating education institutions, and in-kind contributions from Cisco Systems, Custom Micro, Skye Multimedia Group, and Farm9.

The JCJC Advanced Technological Education project grants (one awarded in 1997, one awarded in 1999) define a "beneficial network technology" as one that enables a student to successfully enter and keep pace with current and future network technology workforce trends. They also prepare the educator to enter the classroom and laboratory settings prepared to be a part of the future education workforce and to successfully educate the future workforce. The network technologies considered as emerging or as future technologies have the following characteristics: (1) the education entities targeted lack sufficient knowledge of and experience with the technology; or (2) a current technology is in a constant state of change, thereby affecting information technology education and training within the education entities; or (3) new technologies which are on the "leading edge." Technologies that have been targeted as emerging technologies by SCANTE are Client/Server, Internet/Intranet, and Multimedia utilizing computer networks. *The specific instructional programs supported by these grants are Local Area Network Support, Wide Area Network Support, Computer Servicing Technology, Telecommunications Technology, and Internet Development Technology.* All of these programs were initiated as a result of the National Science Foundation grants.

The seven goals of SCANTE are:

I. to work with education and business entities to identify and to evaluate trends, applications, innovations and curricula in the emerging network technologies;

II. to develop articulation of the two-year degree in network technology with a four-year degree program;

III. to disseminate to educators and their students emerging network technology trends, applications, innovations and curricula;

IV. to develop career education information and strategies to strongly promote interest by secondary and post secondary students in computer network technology, computer servicing technology, and telecommunications technology careers as well as the mathematics and science courses necessary for success in these careers;

V. to provide for continued educational competency of secondary/post secondary faculties who teach, implement, or administer curricula in the emerging technologies addressed;

VI. to establish and facilitate an infrastructure to provide student work-based learning opportunities in emerging network technologies; and

VII. to establish and facilitate an infrastructure to build a network of education, government and business entities that will support the development of quality programs that not only educate the future information technology workforce, but also re-educates the present information technology workforce.

HISTORICAL BACKGROUND

General. At the suggestion of the Computer Information Systems Technology Department's Business Advisory Committee, a two-year degree program in local area network (LAN) support was initiated in the Fall of 1996. Prior to implementation of the program, representatives from JCJC and from businesses involved in network technology met and defined the needed network technology content knowledge. The workplace, mathematics, science, and communication skills needed by a successful network support technician were also defined. Using this information, JCJC then designed and built the student curriculum around these stated competencies. In order to keep pace with the rapid change in network technology, JCJC has met with business advisors and other Mississippi two-year colleges that have also implemented this curriculum to rewrite/update this curriculum. *The rewrite of this curriculum has occurred four times since 1996.*

As of the Fall of 2000, all fifteen of the Mississippi public two-year colleges are offering this LAN support curriculum. The faculty that have implemented this curriculum throughout the Mississippi two-year college system have benefitted not only from the JCJC curriculum developed but also the summer workshops (explained under the NSF supported workshop section) that trained instructors to implement this curriculum. Two of the secondary school teachers in the JCJC NSF workshops have implemented high school network technology programs; Petal Public Schools is one of the school systems implementing this curriculum. In addition, a JCJC network technology instructor is currently on the advisory committee for the Petal Public Schools network support technology program.

SCANTE Workshops Supported through NSF Funding. Jones County Junior College received the first National Science Foundation Advanced Technological Education project in May 1997. The purpose of the grant was to develop an education and training infrastructure that would facilitate the dissemination of this *local area network support* curricula. Our target audiences for the implementation of this curricula were two-year college instructors and middle/secondary school teachers. Participants in the local area network technology workshops received either 16 CEUs from Jones County Junior College or three-hours of graduate credit from The University of Southern Mississippi's College of Science and Technology, whichever they specified would best meet their educational needs. Jones County Junior College awarded the instructors completing the *wide area network technology* (Cisco Networking Academy instructors) 17.6 CEUs for their participation in semesters one, two, three, and four workshops. Other activities sponsored by SCANTE were the Certified Internet Webmaster (CIW) workshops that prepared the participants for the vendor neutral CIW certifications in Fundamentals/i-Net+, Site Designer, E-commerce Designer, and Applications Developer. Seminars and one-day events were also sponsored that informed education and business technicians about Y2K and network security issues. (During the *Fall of 2000* a two-day workshop was offered to education and business entities on the methods of securing networks.) In addition to the technical workshops and seminars, specific workshops were held that educated secondary and post secondary counselors about careers in advanced network technology. These counselor workshops encouraged the recruitment of females and minorities into the exciting fields of advanced network technology.

Specific Workshop Activities – Local Area Network Technology. The three-year training schedule for the LAN support curricula began with workshops in June 1997. An inaugural four-week workshop on the JCJC campus was held for two-year college instructors and middle and secondary school teachers; instructors for the workshops for the next two years were selected from this inaugural group. Furthermore, Jones County Junior College developed the instructional model to be used across the technology partnership's workshops. This model included not only the curriculum but the laboratory environment design. Both the curriculum and the laboratory design was subsequently utilized at the two-year partners' campuses in the 1998 and 1999 teacher workshops.

Workshop participants the first summer consisted of instructors from the five two-year college partners including JCJC faculty, middle/secondary school teachers who were to become the secondary partners of the two-year colleges in this NSF grant, and other two-year college instructors and middle/secondary teachers from the State of Mississippi. A total of thirty participants, fifteen two-year college instructors and fifteen middle/secondary teachers, attended the Summer of 1997 workshop. The workshop participants represented every region of the State of Mississippi.

During the Summer of 1997 workshop the site educators/trainers were selected for year two (1998) and year three (1999) workshops to be held on the campuses of the two-year partners, Copiah-Lincoln Community College, Itawamba Community College, Mississippi Delta Community College, and Mississippi Gulf Coast Community College, as well as workshops held at JCJC. These site educators/trainers learned the curriculum and pedagogy used to teach the summer workshops and were required to receive their CNA (Certified Novell Administrator) designation before teaching the summer of 1998 and 1999 workshops.

The selection criteria used for the two-year college instructor participants were: (1) their willingness to participate in the four-week workshop; (2) the need for an understanding of network management and administration; (3) the need to be able to teach the networking curriculum adopted by the public two-year colleges in Mississippi; (4) their agreeing to take and pass the Certified Novell Administration and/or the Windows NT certification tests; and (5) a recommendation by their immediate supervisor. The middle/secondary teachers also had to meet criteria 1, 2, 4, and 5 above as well as be presently managing/teaching a class in which knowledge of LAN administration/management was needed. All participants had to be working with students in a classroom and/or learning lab.

In order for the workshop participants to receive their full stipend, they were required to take and pass (at a certified testing center) the examination to become a Certified Novell Administrator (CNA) or the comparable exams for Windows NT. Currently, 80 percent of the participants in summer workshops of 1997-99 have passed this certification exam. Furthermore, all workshop site educators/trainers (two-year college instructors and middle/secondary teachers) must have passed the CNA exam to be eligible to teach the summer workshops. This model was used for both the Novell oriented workshops and the Windows NT oriented workshops.

Specific Workshop Activities – Wide Area Network Technology. Jones County Junior college applied for and received approval to be the Regional Cisco Networking Academy for the post secondary education institutions in Mississippi. As a result of this, JCJC is responsible for training of the instructors, assisting with implementation of any academy sites, and monitoring the quality of the sites. Presently JCJC has thirteen local academy sites — 11 two-year colleges and two comprehensive universities. Each of these sites has either credit and/or non credit offerings in wide area network technology. The Summer of 2000 completed the first group of Cisco intructors' training and the participants in these classes are presently preparing to complete the certification exam as a Certified Cisco Network Administrator (CCNA). The JCJC Regional Cisco Networking Academy and its partnerships have been selected by Cisco Systems as an example of "Best Practices."

IMPACT OF TRAINING

General. As of July 2000, fifty-four of the eighty-two Mississippi counties have been impacted through either the instruction of two-year college faculty and/or middle/secondary school faculty. In addition, colleges in eleven states and one Native American college (Dine' College) have benefitted. This impact includes the preparation of instructors to implement the advanced network curriculum and/or to provide assistance in the integration of the advanced network curricula components into a two-year degree program in network technology support.

In 1999, Dr. Catherine Perry Cotten was selected to mentor four, two-year colleges in the development of two-year degree programs in advanced network technology. These colleges are located in New York (Genesee Community College), New Jersey (Bergen Community College), Tennessee (Pellissippi State Technical Community College) and Texas (South Texas Community College). We are pleased to report that all four colleges have successfully implemented their programs. Two of the colleges have both a local area network (LAN) and a wide area network

(WAN) component. All colleges have developed business advisory committees that assist in maintaining the curricula offerings.

The wide impact of the SCANTE activities are further demonstrated by the fact that Dr. Cotten is a member of the NSF Visiting Committee for NSF funded project that is initiating a LAN and WAN curricula for the Kentucky Community College System. She is also a member of the NSF Visiting Committee for Collin County Community College, Frisco, Texas. Both of these projects represent LAN and WAN curricula development and implementation.

The teacher enhancement workshops offered through SCANTE have affected one hundred and eight (108) public schools and more than 51,000 students. Two hundred and nine (209) middle and high school teachers have benefitted from the workshops. As a result, high schools have developed network support curricula both in LAN and WAN. Twenty-five two-year colleges in six states have attended the summer workshops represented by 82 faculty. Approximately 25,000 two-year college students have benefitted from the instructional programs.

Another demographic that further demonstrates the significance of projects' impact is that the participants have included one hundred and ninety-five (195) females and ninety-six (96) males from middle schools, high schools, and two-year colleges. We believe these statistics are significant due to the relatively low representation of females in the field of information technology. Sixty-five percent of the students in the advanced network technology programs (LAN, WAN, Internet Development, Computer Servicing, Telecommunications) are females. The students are encouraged to take and pass the relevant certifications exams; presently, the students have a 90 percent pass rate. JCJC information technology students represent the largest component of the work-based learning student program; approximately sixty students per year are involved in this program. As a result of the quality of the student instructional components, the placement of our students in jobs related to their computer training is at 98 percent.

Other Activities supported by SCANTE:

- Two of JCJC's advanced network technology students were selected for inclusion in a NSF publication on advanced technology education.

- In the Summer of 2000, the JCJC Regional Cisco Networking Academy was selected as an example of "best practices" by Cisco Systems Networking Academy company representatives. Cisco Systems recognized JCJC for its partnerships. SCANTE representatives presented at both the Las Vegas and the Orlando *Networkers 2000* meetings.

- In April of 2000, Farm9, a leading provider of Internet-based security software for vulnerability detection, analysis and response, presented a seminar to 160 business and education technicians. In Fall of 2000, SCANTE will again host Farm9 for a two-day workshop for network technicians and administrators.

- Summit 2000, an information technology conference, was hosted by JCJC on February 7-9, 2000. The conference, funded by grants from NSF and The Phil Hardin Foundation, gave JCJC and SCANTE an opportunity to showcase achievements in information technology education. More than 350 participants, educators, students, and business and government representatives attended from eighteen states. Twenty-five two-year colleges from twelve states and forty-one business representatives from twenty-two businesses were present at this meeting. Other NSF Advanced Technological Education information technology projects were invited to present the results of their work.

- Two instructors involved in the network technology training and instructional programs have received teaching awards. Diane Warren, a JCJC Computer Information Systems Technology instructor, was chosen as the American Technical Education Association Teacher of the Year in 1999. Rhonda Posey, an instructor for one of the partner institutions Copiah-Lincoln Community College, was selected as Mississippi Technical Educator of the Year.

- The JCJC NSF project was selected by the American Association of Community Colleges as one of ten exemplary Advanced Technological Education projects. JCJC's project will be included in a monograph of these exemplary projects.

- JCJC hosted the June 24, 1998 Gulf States Information Technology Workforce Conference on the JCJC campus. Interested educators, state and federal government personnel, and business leaders met to discuss their workforce needs and possible ways to address those needs. The states of Alabama, California, Florida, Louisiana, Mississippi, Tennessee and Washington were represented. There were representatives from the U.S. Department of Commerce, U.S. Department of Education, the National Science Foundation, U.S. Navy technology offices, NASA, Air Force and representatives from Alabama, Louisiana, Tennessee and Mississippi Departments of Economic and Community Development. The results of this conference and other similar conferences across the nation were published in a 1999 United States Department of Commerce publication titled "The Digital Work Force: Building Infotech Skills at the Speed of Innovation."

- JCJC, Computer Prep (an IT company), The Phil Hardin Foundation, and the JCJC ATE project hosted a National Conference highlighting information technology and the Jones County Junior College ATE project in June 1998. Representatives from 12 states and Canada attended the two and one-half day conference emphasizing network technologies. Topics included the following: local area networks, IT skill standards, web-based distance learning, Cisco Networking Academies, and Internet 2.

- The JCJC NSF project was one of eight featured information technology projects at the National Information Technology Workforce Convocation meeting in January of 1998 in Berkeley, California. This meeting was hosted by the Information Technology Association of America (ITAA).

PROGRAM SUSTAINABILITY

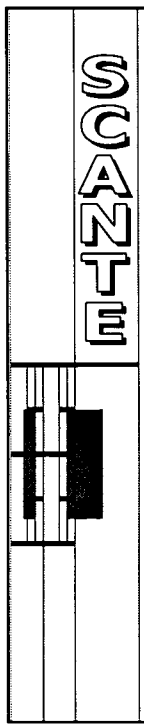
These opportunities will outlast the duration of the NSF funding because to date all activities have been built into the infrastructure of the colleges and schools involved. The education entities involved have committed time and money to continue the programs. As an example, Jones County Junior College has hired an IT Workforce Specialist who will initiate, coordinate, and implement training activities for advanced network technology. JCJC is also initiating ***IT Online!*** that will provide advanced network technology non-credit and credit courses via distance learning. The structure of ***IT Online!*** allows students to select the units based on either college credit requirements or technical certification requirements. All future and current members of the IT workforce will have access to these courses — business, education, government. NSF has provided the opportunities to begin the information technology education and training activities and JCJC has provided the lasting infrastructure.

Another example of long-lasting program impact is the specific articulation agreement developed between JCJC and The University of Southern Mississippi, a participating member of SCANTE. Through partnership between JCJC and USM faculties, a total of fifty-one (51) hours has been identified in the JCJC curriculum eligible for transfer for either LAN or WAN program articulation. Additional articulation agreements are being developed for Computer Servicing, Telecommunications and Internet Development Technology. This articulation provides not only a pipeline for the education of technicians but also the education of future instructors because this articulation agreement includes not only a bachelor's degree but also a master's degree. The University of Southern Mississippi is also working with other members of SCANTE to developed articulation agreements.

The middle/secondary teacher enhancement component also demonstrates a further example of long-term impact. This component of the current ATE project has become as successful as the two-year college component. The series of workshops at the two-year college sites have become the "preferred education" for preparing these teachers in local area network technology skills for the Tech Prep Computer Discovery and Tech Prep Technology Discovery sites. Presently, the only other source of education/training is commercial vendors which can last for approximately five days. The SCANTE supported workshops are four-weeks and this length of time is necessary for teachers who have not been educated as computer scientists.

Additional reference on SCANTE located on page 95 of the following publication:

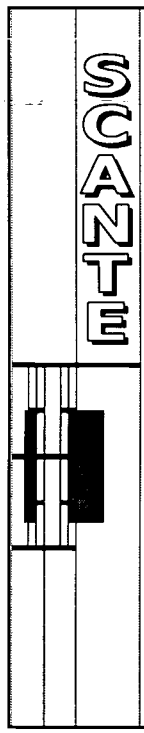
Mahoney, J. R., and L. Barnett (Eds). (2000). The Leading Edge: Advanced Technological Education Programs at Community Colleges. Washington, D.C.: Community College Press.



21st Century Technology

Jones County Junior College
Ellisville, Mississippi
Southeast Consortium
for
Advanced Network
Technology Education (SCANTE)

The League for Innovation in Community Colleges, November 2000



Why?

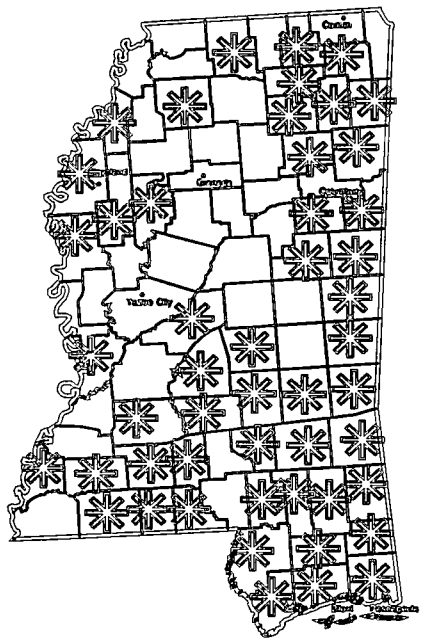
"We need to foster a flexible education system --- one that integrates work and training and that serves the needs both of experienced workers at different stages in their careers and of students embarking on their initial course of study. Business partnerships with community colleges and public agencies, distance learning over the Internet, and corporate universities will play an increasingly important role."

Alan Greenspan

The League for Innovation in Community Colleges, November 2000

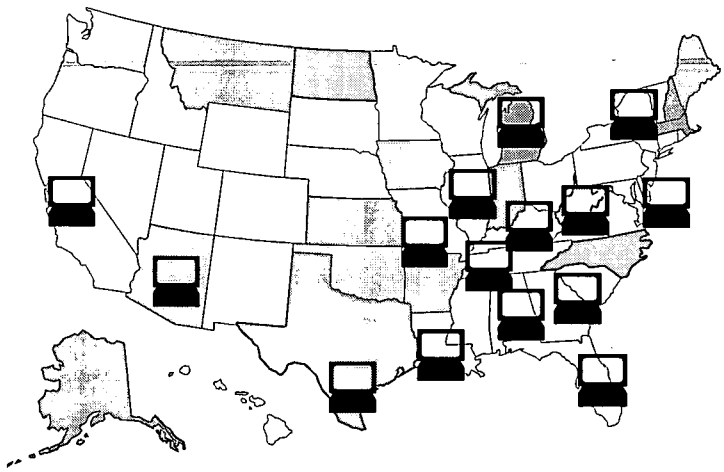
SCANTE

Mississippi Counties Impacted



The League for Innovation in Community Colleges, November 2000

SCANTE



Other States Impacted ...

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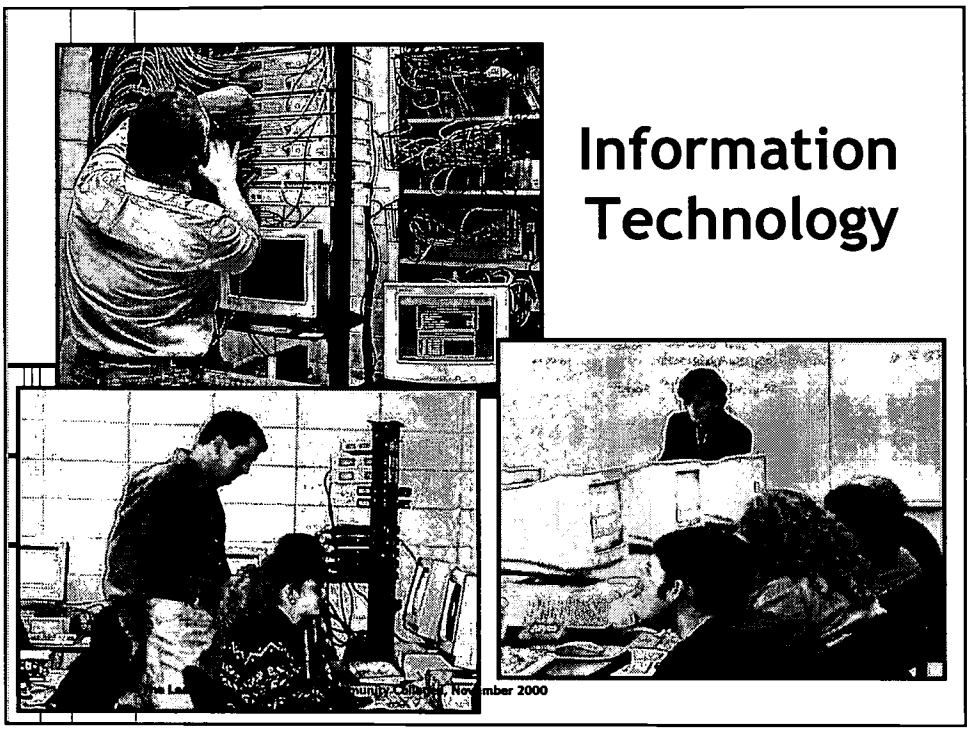


SCANTE

Information Technology

- Networks
  - Local area networks, wide area networks, Internet technology
  - Novell, Windows NT, Cisco Regional and Local Academies
- Programming
- Internet Development Technology
- Computer Servicing Technology
  - A+ Certification in PC Maintenance
- Telecommunications Technology

The League for Innovation in Community Colleges, November 2000

SCANTE

Cisco Networking Academies

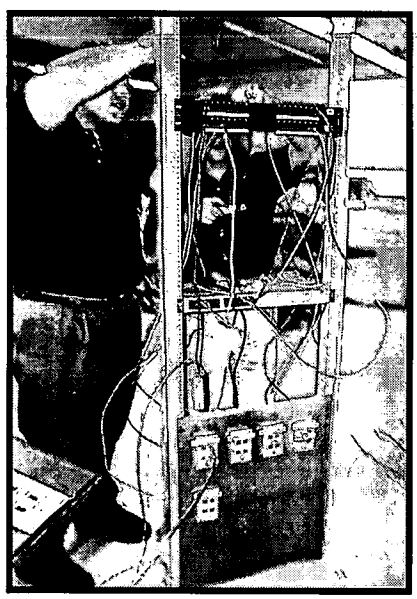
and

Online Learning

The League for Innovation in Community Colleges, November 2000

SCANTE

History of Mississippi Participation



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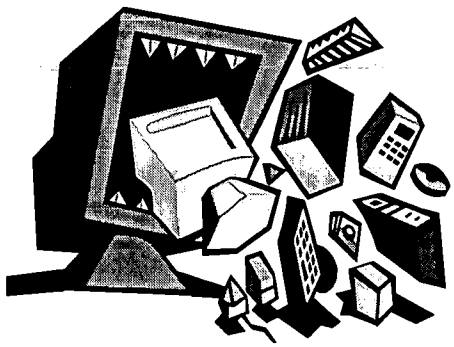
SCANTE

JCJC Regional Academy trains Post-Secondary Institutions in Mississippi

Regional Academy
and
Local Academies

SCANTE



NOW ...

CISCO NETWORKING ACADEMY ONLINE LEARNING AND THE TWO-YEAR COLLEGE LOCAL AREA NETWORK AND WIDE AREA NETWORK TECHNOLOGY EDUCATION PROGRAMS.

SCANTE

Jones County Junior College

- An open enrollment education institution
- Fall 1999 student headcount was 4868
- Average age of student body is 23 years
- Students represent 51 Mississippi counties and 6 states
- JCJC is the largest single campus in the two-year college system in Mississippi
- 70% of the student body are enrolled in the college transfer programs.

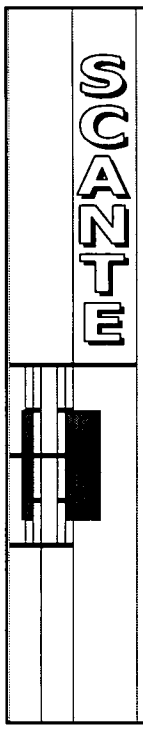
The League for Innovation in Community Colleges, November 2000

SCANTE

More JCJC Demographics !

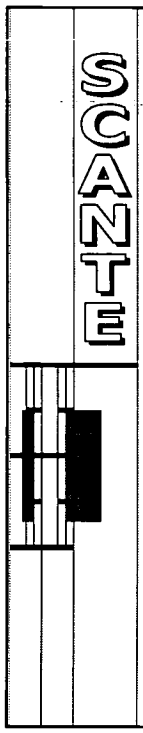
- 97% of JCJC's instructional courses require use of computer technology
- The ratio of student computers to students is 1:3.
- The JCJC Computer Information Systems Technology Department assisted in the development and then piloted the LAN A.A.S. degree programs and the other Internet courses for the Mississippi 2-year college system.
- All Mississippi public 2-year colleges use the curriculum.

The League for Innovation in Community Colleges, November 2000



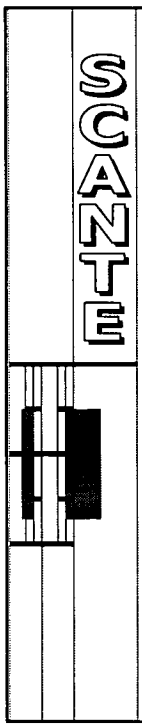
More JCJC Demographics !!

Jones County Junior College is presently piloting the wide area network technology and the Internet development technology A.A.S. degree programs for the Mississippi 2-year college system. In addition, JCJC is the Regional Cisco Networking Academy for the post-secondary institutions in Mississippi.



Articulation ...

The Programming, LAN,WAN, Internet Development, Computer Servicing, and Telecommunications degree programs articulate with comparable programs in the School of Engineering Technology, The University of Southern Mississippi.



Articulations . . .

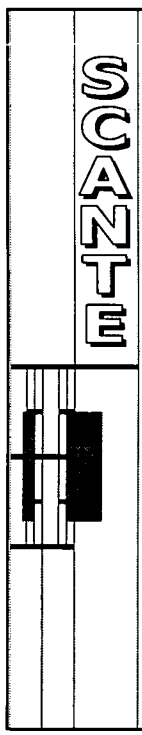
The University of Southern Mississippi

Software Engineering Technology

Emphasis Areas:

- *Programming (networked applications)*
- *Computer Networking*
- *Telecommunications*
- *Computer Engineering*

The League for Innovation in Community Colleges, November 2000



ATE Project Goals—1997 Award

- Ultimate goals of ATE project
  - An approved statewide infrastructure
  - Education of 2-year college, middle and high school teachers
- Relationship to other projects
  - 2-year college A.S. degree in LAN support
  - Grades 8-12 computer technology courses

SCANTE

Analysis -- Teacher Participants

- Demographics of Teacher Participants
  - Gender
  - Education
  - Years teaching
  - Classroom assignments
- Selection Criteria
  - 2-year college teacher
  - middle/secondary teacher
- Success Indicators - national certifications, CEUs, graduate credit, content test

SCANTE

Participant Impact

- 110 Public Schools involved in workshop activities.
  - 224 middle school and high school educators
- 23 Two-year Colleges in 5 states involved in workshop activities.
  - 65 two-year college educators
- 185 females and 104 males in workshops.
- Presently, the Curriculum has been adopted by 21 two-year colleges in 7 states.

SCANTE

Student Impact . . .

More than 60,000 students

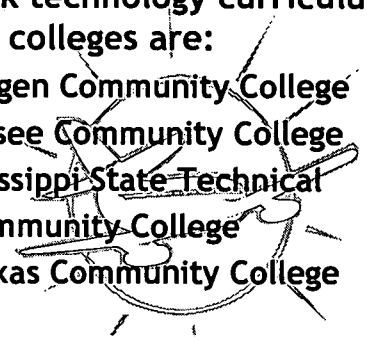
The League for Innovation in Community Colleges, November 2000

SCANTE

Further Impact at National Level

Selected by Phi Theta Kappa (and funded by the National Science Foundation) to mentor 4 two-year colleges in the establishment of a computer network technology curriculum. The location of the colleges are:

- New Jersey -- Bergen Community College
- New York -- Genesee Community College
- Tennessee -- Pellissippi State Technical Community College
- Texas -- South Texas Community College



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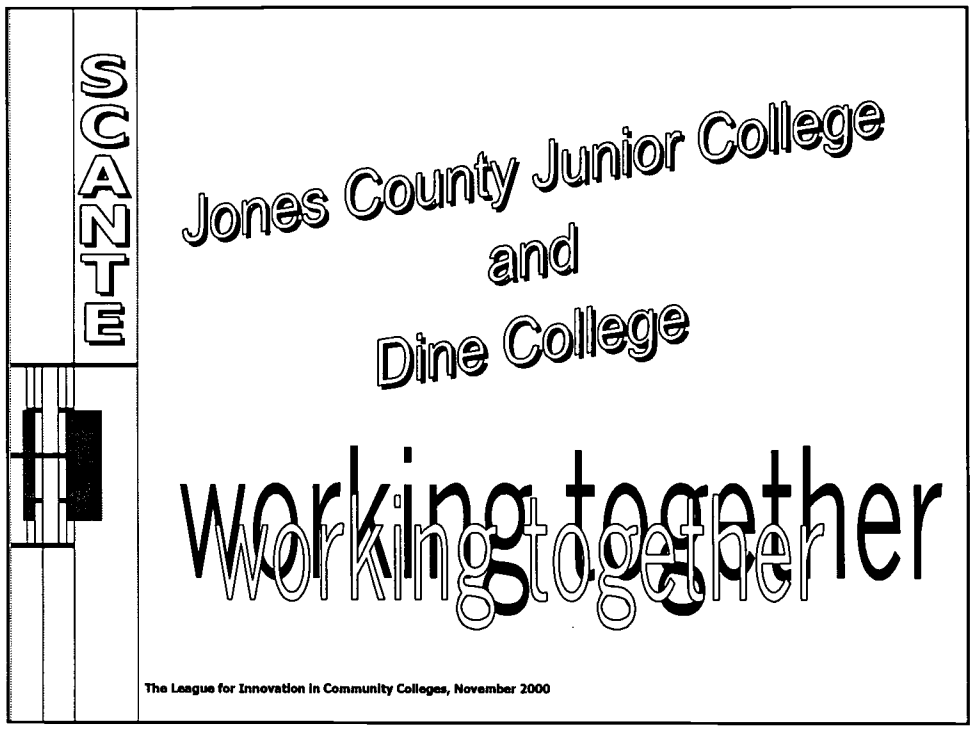
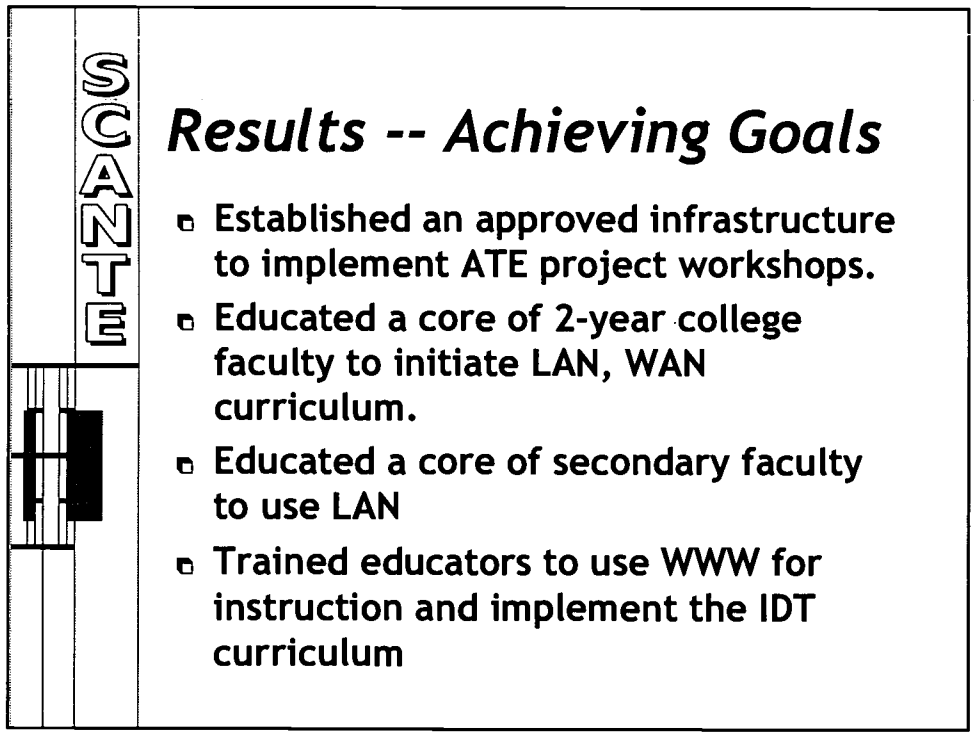
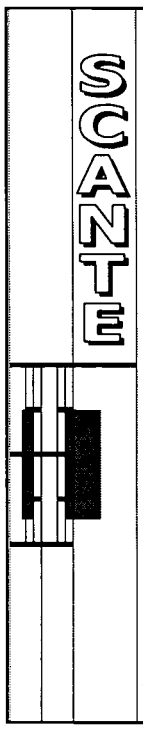
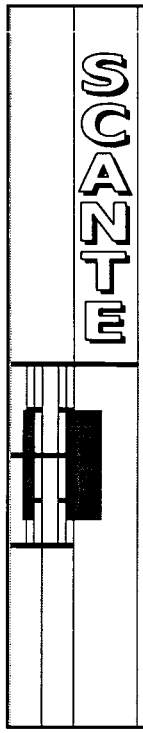

SCANTE
Jones County Junior College
and
Dine College
working together
working together
The League for Innovation in Community Colleges, November 2000


SCANTE
Results -- Achieving Goals
Established an approved infrastructure to implement ATE project workshops.
Educated a core of 2-year college faculty to initiate LAN, WAN curriculum.
Educated a core of secondary faculty to use LAN
Trained educators to use WWW for instruction and implement the IDT curriculum



Results -- Impact

- Secondary faculty are able to administer LAN systems in an instructional environment.
- Secondary faculty are able to teach basic concepts of LANs to students.
- Two-year college faculty are able to administer LAN systems in an instructional environment.
- Two-year college faculty are able to initiate A.A.S. degree programs in LANs.



ATE Project Mission - 1999 Award

The mission of this project is to embrace and encompass existing and emerging network technologies as their use becomes beneficial to the two-year college environment. Technologies that have been targeted as emerging technologies in this project are Client/Server, Internet/Intranet, and Multimedia utilizing computer networks.

SCANTE

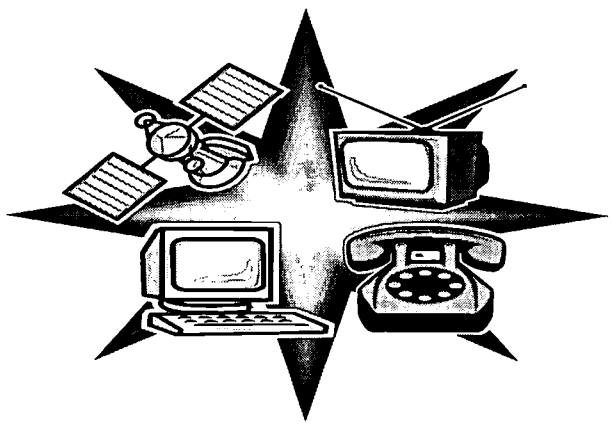
Jones County Junior College

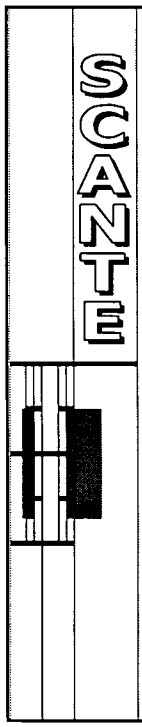
Southeast Consortium for Advanced Network Technology Education

- The NSF Project is successful as a result of the collaboration of education, business/industry, and state and federal agencies.
- The NSF Project is successful because it promotes economic development through the improvement of the present and the future IT workforces.

SCANTE

IT Online !



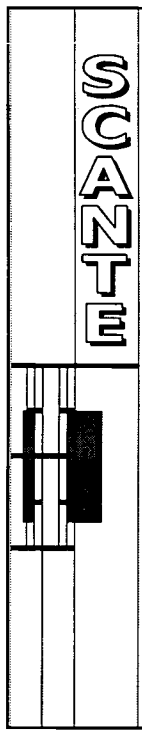


Jones County Junior College

Southeast Consortium for Advanced Network Technology Education

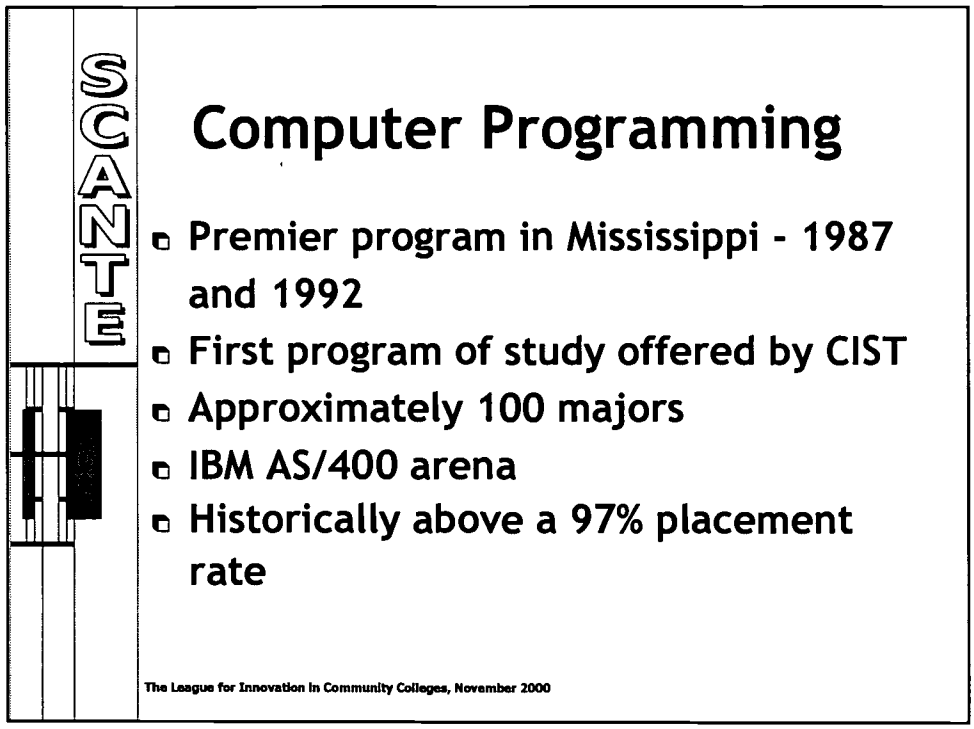
Presenter: Catherine Perry Cotten

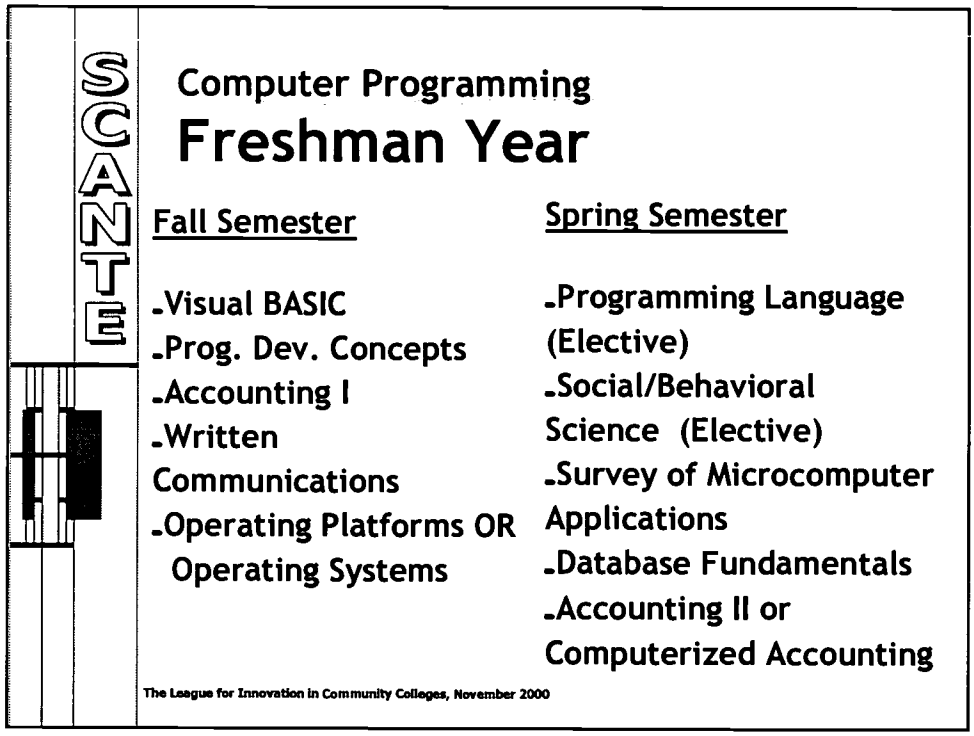
E-mail: catherine.cotten@jcjc.cc.ms.us

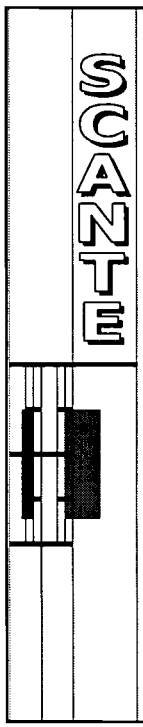


CIST Offerings

- Computer Programming
- Local Area Networking
- Wide Area Networking
- Internet Development


SCANTE
Computer Programming
Premier program in Mississippi - 1987 and 1992
First program of study offered by CIST
Approximately 100 majors
IBM AS/400 arena
Historically above a 97% placement rate
The League for Innovation in Community Colleges, November 2000

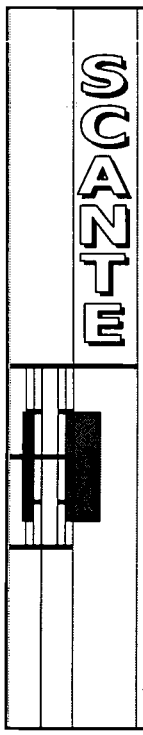

SCANTE
Computer Programming
Freshman Year
Fall Semester
-Visual BASIC
-Prog. Dev. Concepts
-Accounting I
-Written Communications
-Operating Platforms OR Operating Systems
Spring Semester
-Programming Language (Elective)
-Social/Behavioral Science (Elective)
-Survey of Microcomputer Applications
-Database Fundamentals
-Accounting II or Computerized Accounting
The League for Innovation in Community Colleges, November 2000



Computer Programming

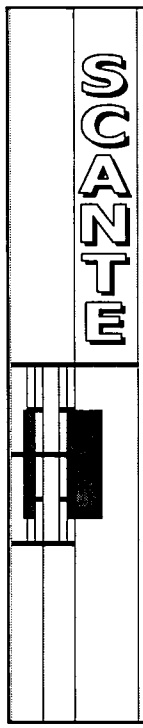
Sophomore Year

Fall Semester	Spring Semester
-Network Administration	-System Analysis & Design
-Programming Language (Elective)	-Humanities/Fine Arts (Elective)
-Business Communication OR Career Development	-Programming Language (Elective)
-Programming Language (Elective)	-Elective
-Math/Science Elective	-Oral Communication (Elective)



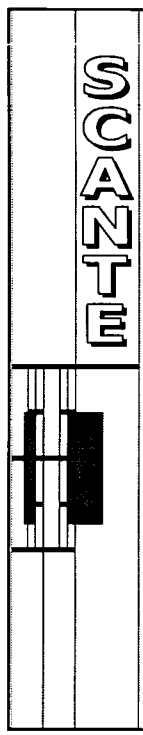
Electives . . . Programming

- RPG
- COBOL
- Java
- Database
- Control Language
- Advanced RPG
- Advanced COBOL
- C
- Advanced C
- Advanced Visual BASIC
- Script



Local Area Networking

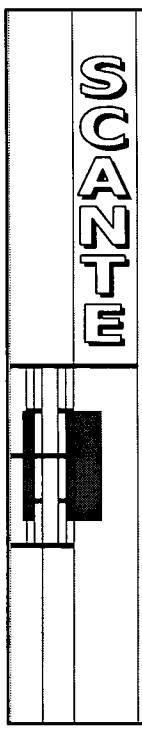
- Began program in 1996 --- Increased CIST enrollment by 50% (100 majors)
- Instruct students to install and administer local area networks
- First class --- 22 students graduate
- 1998 class --- 26 students graduate
- 1999 and 2000 classes --- 30 students graduate



Local Area Network Support

Freshman Year

Fall Semester	Spring Semester
-Operating Platforms	-Technical Elective
-Fundamentals Of Data Communications	-Network Components
-Internet Concepts	-Network Operating System Elective
-Network Operating Systems Elective	-Programming Language Elective
-Written Communications	-Social/Behavioral Science Elective



Local Area Network Support

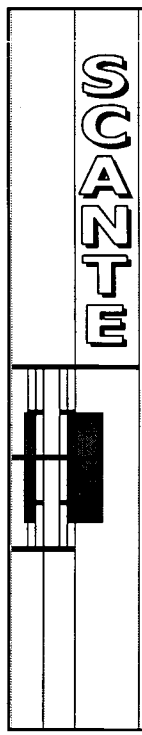
Sophomore Year

Fall Semester

- Network Planning/Design
- System Maintenance
- Technical Elective
- Business Communications
- Mathematics/Science Elective

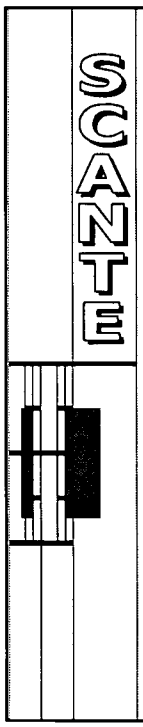
Spring Semester

- Project Management
- Technical Elective
- Oral Communications Elective
- Humanities/Fine Arts Elective
- Elective



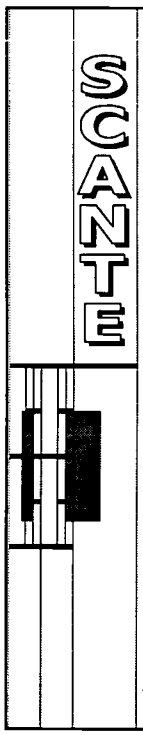
Electives . . .

- Network Operating Systems Electives
  - Network Administration Using Novell
  - Advanced Network Administration Using Novell
  - Network Administration Using Microsoft Windows Server
  - Advanced Network Administration Using Microsoft Windows Server
  - Network Administration using Unix
  - Any instructor approved course from Computer Programming, LAN, WAN, or Electricity/Electronics
- Programming Electives
  - BASIC Programming
  - RPG Programming
  - COBOL Programming
  - Java Programming
  - Database Programming
  - C Programming



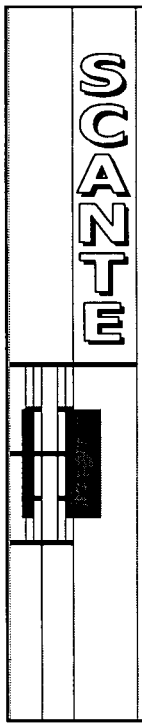
Placement

- First class 22 students
  81% placement
- 1998 class of 26 students
  88% placement
- 2000 class of 27 students
  82% placement



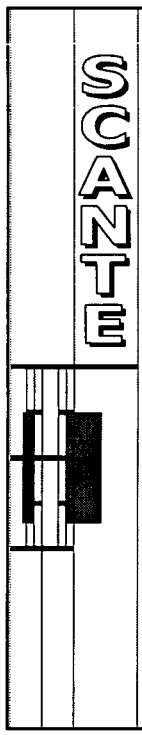
Wide Area Network (WAN)
The History . . .

- Industry Demand Driven
- Cisco Regional Academy
  (national curriculum)
- Convinced MDE-OVTE of Need
- State Curriculum Framework



Wide Area Networking

- Designed by major Mississippi industries and educators
- Piloted program for the state of Mississippi
- Classes began August, 1998
- 5 Instructors at different levels of Cisco Training
- 24 students enrolled (some double majors)

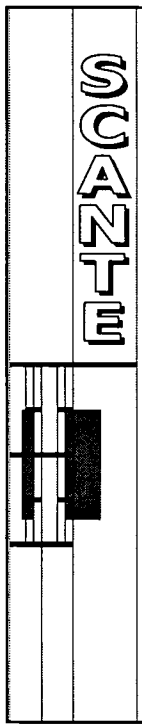


Wide Area Network Support

Freshman Year

(Same as first year of LAN Technology)

Fall Semester	Spring Semester
-Operating Platforms	-Technical Elective
-Fundamentals Of Data Communications	-Network Components
-Internet Concepts	-Network Operating System Elective
-Network Operating Systems Elective	-Programming Language Elective
-Written Communications	-Social/Behavioral Science Elective

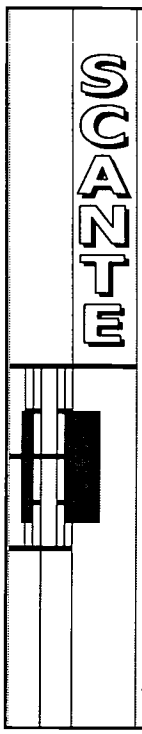


Wide Area Network Technology

Sophomore Year

Fall Semester	Spring Semester
-Survey of Network Electronics	-Router Configuration
-Communication Hardware	-WAN Management
-WAN Design	-Network Security
-Protocols	-College Algebra
-Business Communication	-American Government
-Speech	

The League for Innovation in Community Colleges, November 2000



Wide Area Network Technology

★ *100% pass rate on CCNA*

★ *100% job placement*

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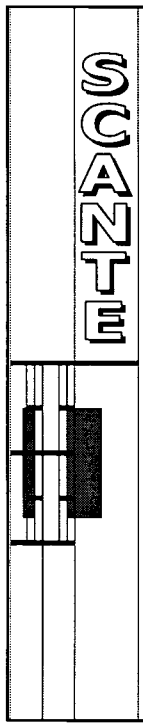
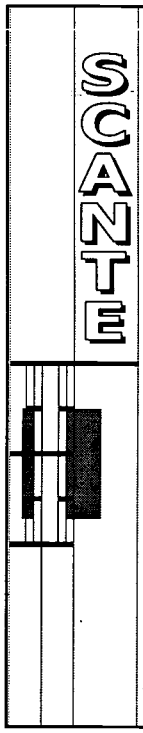


Certifications

- ☑ *Novell*
- ☑ *Microsoft*
- ☑ *A+*
- ☑ *CISCO*

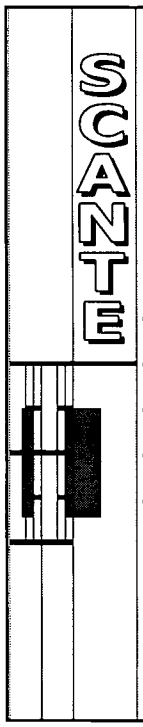
Academic partners with Novell, Microsoft, and Cisco



Internet Development Technology

Freshman Year

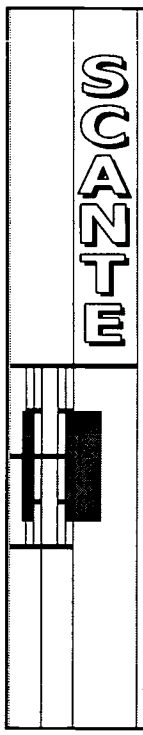
First Semester	Second Semester
- English Comp I	- English Comp II
- Survey of Microcomputer Applications	- CGI Programming I
- Internet Concepts	- Internet Programming I
- Advertising Design	- Web Design Applications
- Computer Fundamentals	- Network Fundamentals



Internet Development Technology

Sophomore Year

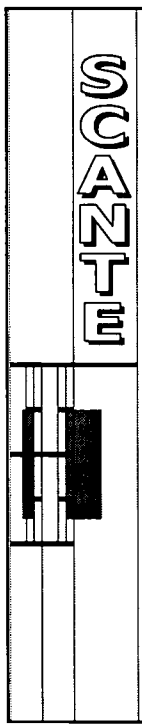
Fall Semester	Spring Semester
- Business Communication	- Project Management
- College Algebra	- Speech
- CGI Programming II	- American National Government
- Multi-Media Applications	
- Internet Programming II	- Web Master Concepts
	- Web Server



Certifications

Certified Internet Webmaster

(8 Levels possible)

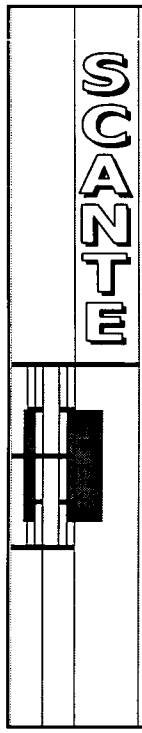


Jones County Junior College

Southeast Consortium for Advanced Network Technology Education

Presenter: Diane Warren

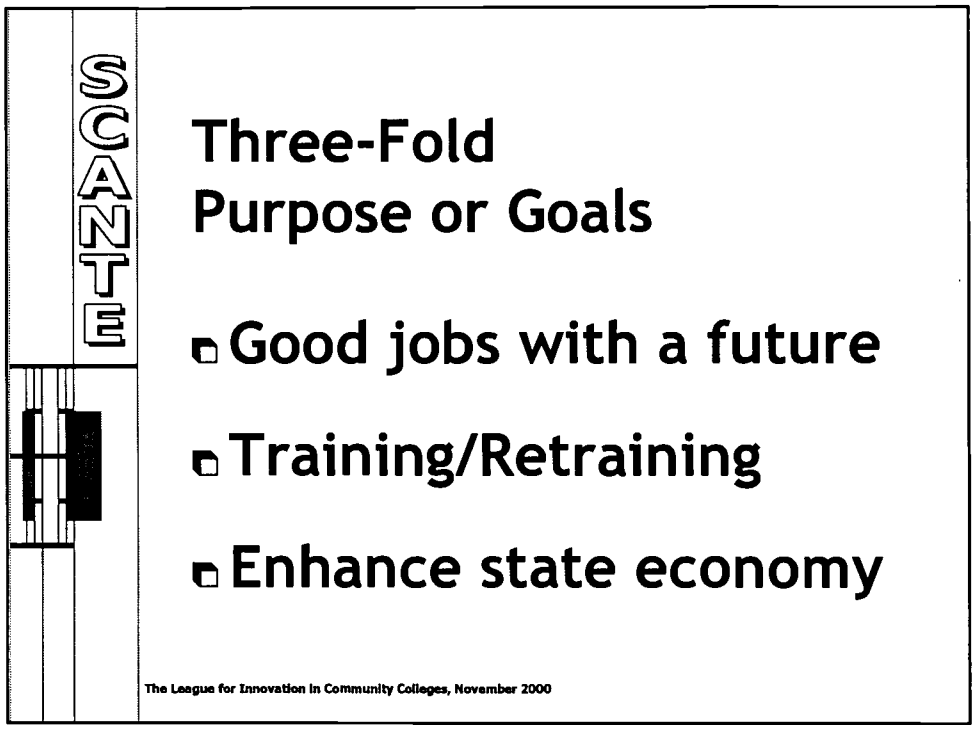
E-mail: diane.warren@jcjc.cc.ms.us

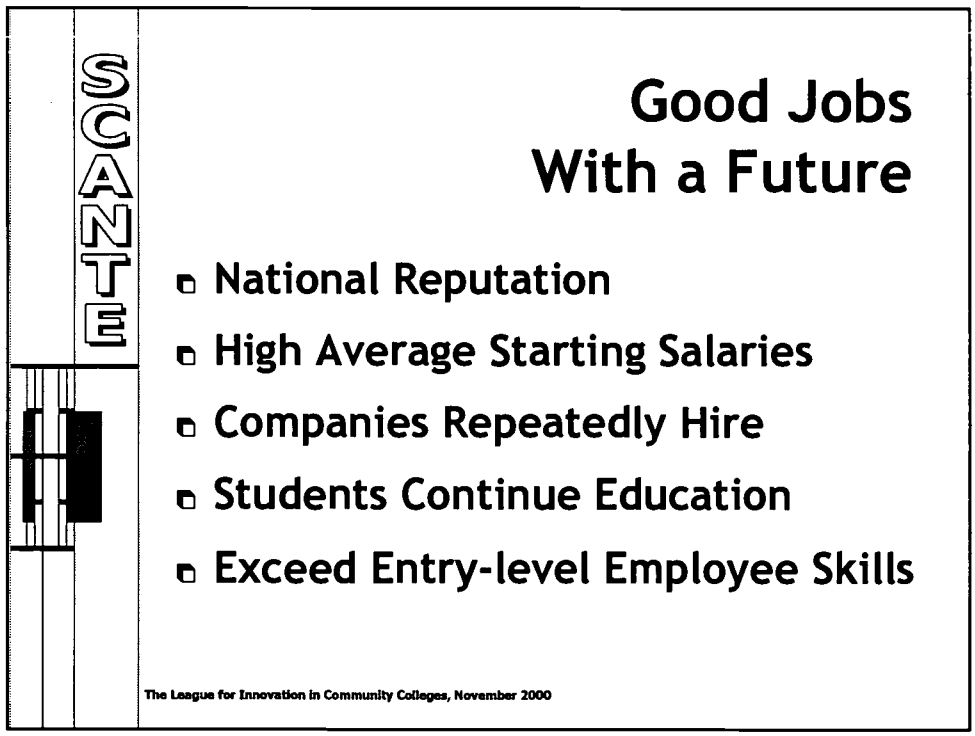


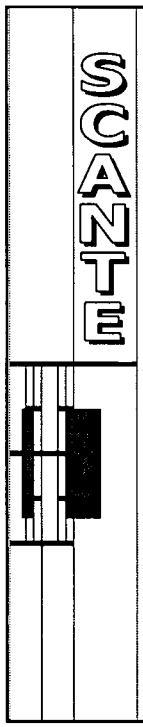
Good Jobs With a Future

- Began in 1966
- Growth from 5 majors to 257 majors and 15 pre-majors and numerous part- time majors
- Growth from one instructor to nine and three part-time instructors
- Sponsor two student organizations
- Graduates in 23 states and 42 MS counties

The League for Innovation in Community Colleges, November 2000

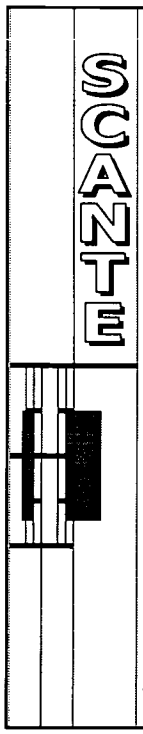

SCANTE
Three-Fold
Purpose or Goals
Good jobs with a future
Training/Retraining
Enhance state economy
The League for Innovation in Community Colleges, November 2000


SCANTE
Good Jobs
With a Future
National Reputation
High Average Starting Salaries
Companies Repeatedly Hire
Students Continue Education
Exceed Entry-level Employee Skills
The League for Innovation in Community Colleges, November 2000



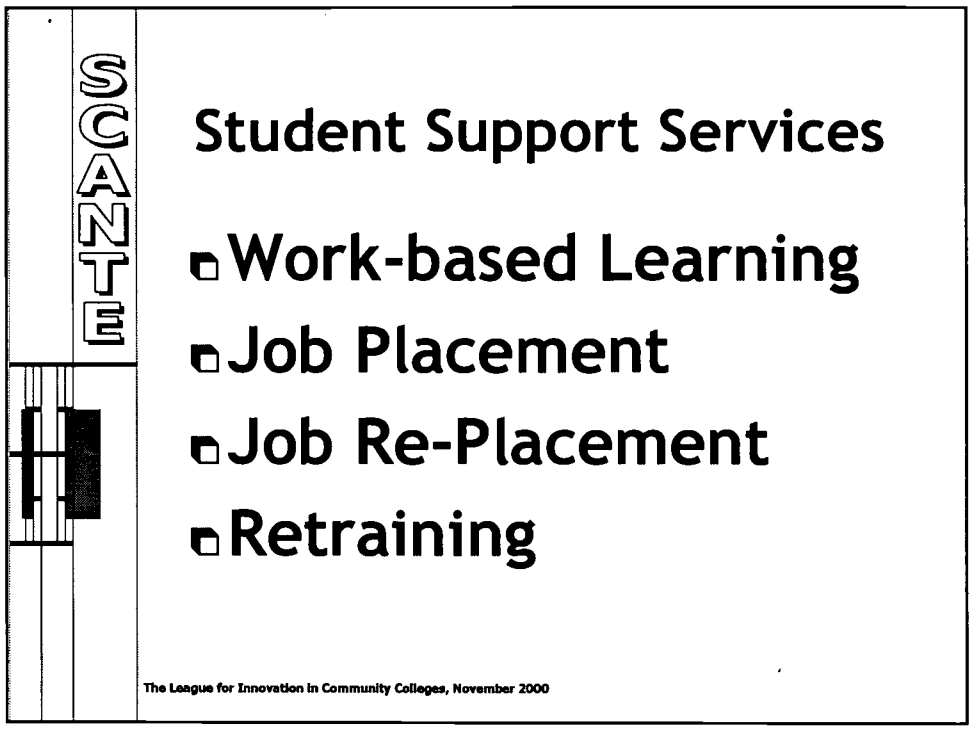
Training/Retraining

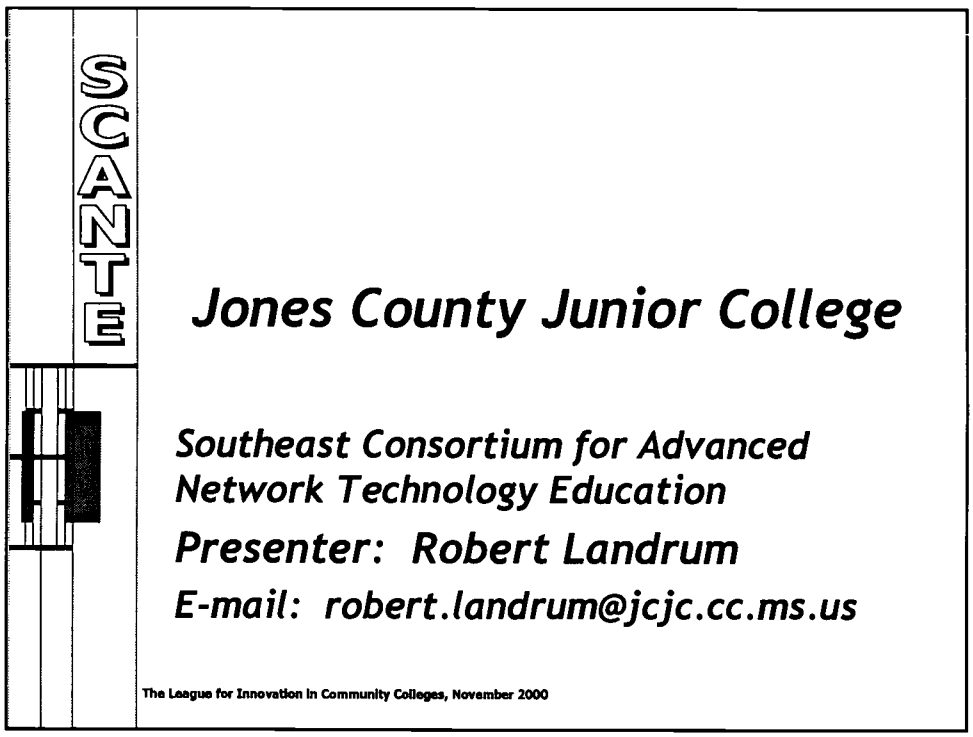
- Offer Night Classes for Students in Industry
- Customize Classes for Industry
- Masters and Ph.D. Students
- Instructor Preparation Workshops

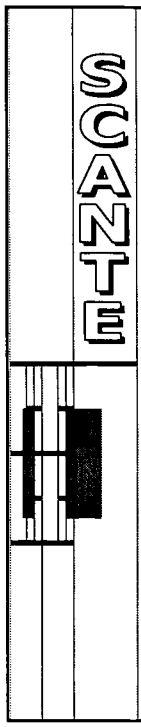


Enhance State Economy

- Help private industry "look" at Jr./Community College system for IT employees
- Accreditation of program by Mississippi ITS
- Supply employees for home industries


SCANTE
Student Support Services
Work-based Learning
Job Placement
Job Re-Placement
Retraining
The League for Innovation in Community Colleges, November 2000


SCANTE
Jones County Junior College
Southeast Consortium for Advanced Network Technology Education
Presenter: Robert Landrum
E-mail: robert.landrum@jcjc.cc.ms.us
The League for Innovation in Community Colleges, November 2000



Questions?

Website:
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E-mail: catherine.cotten@jcjc.cc.ms.us

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