INSTRUCTIONAL PROGRAM REVIEW FOR: COMPUTER NETWORKING TECHNOLOGY AND CISCO SYSTEMS COMPUTER NETWORKING TECHNOLOGY PROGRAMS

PROGRAM STATUS:

I. Alignment with the College's mission, core values and the college's strategic plan.

A. Supporting the Collin College Mission

Collin County Community College District is a student centered and community centered institution committed to developing skills, strengthening character, and challenging the intellect.

Collin College's computer networking programs are designed to impart within successful students a fundamental knowledge of computer network function and design. Throughout the programs students are intellectually challenged to learn the conceptual and practical knowledge required to serve the information technology needs of businesses that reside within the communities of the college's service area. A fundamental component of these programs is the development of skill sets, abilities and behaviors that mold the professional character that local businesses seek in potential employees.

B. Supporting Collin College Core Values

The computer networking programs support Collin's core values in a number of ways. The programs offer a wide breadth of opportunities to learn a number of networking technologies, with a delivery to match most current student lifestyles. In addition to the traditional face-to-face classroom environment, delivery can be done via Web-based online classes, where a student can complete the class via self-study with mentoring from faculty. Hybrid classes which marry the traditional classroom environment with modern online availability are increasingly becoming a student option.

Computer networking program faculty provide community service and involvement by offering 3rd and 4th year high school students the opportunity to take a number of courses common to both computer networking programs through Collin's technical dual-credit program in a number of Collin County school districts. This allows high school students the opportunity to get an early start on their educational goals as well as directly preparing them with valuable knowledge needed to obtain employment in the dynamic information technology field. Program faculty members also lend their support and the support of their students to community service via their involvement in student organizations like the National Technical Honor Society.

The computer networking program faculty members demonstrate their creativity and innovation in the program by routinely updating the content of the course offerings within both programs. In

addition, they are constantly looking for methods/techniques to use new technologies to leverage their ability to deliver their courses more effectively and to a wider student body. Recently, faculty have capitalized on combining computer virtualization technologies with the existing Blackboard learning management system to further expand options for students in the Security+ and Network+ courses common to both computer networking programs. These innovations will apply to future course offerings in storage and cloud computing.

The program faculty adhere to rigorous and strict academic standards for their students. These standards have made their way into the community. Local companies are offering our students internship, permanent hire, promotion and internal transfer positions based upon the knowledge they have gained from their computer networking courses.

Computer networking program faculty treat all students with dignity and respect regardless of whether they are current high school students, recent high school graduates, career transition students, or returning veterans. While Collin's goal is to provide its students with a top notch technical education to get them started in a new career, the success of each student requires that the faculty emphasize the importance of individual accountability while providing an environment that encourages learning from failure in order to allow the student's future employer to achieve its mission critical goals. Finding this balance requires that faculty members demonstrate dignity and respect in the classroom on a daily basis.

Finally, the faculty of the computer networking program adhere to high standards of integrity for the program by continuously creating new content, enhancing existing courses, and by innovations in course delivery. The computer networking faculty members believe their high standards of integrity have been a key factor in the increase in the program's course enrollments over the past four years.

C. Supporting Collin College Strategic Plan

The computer networking program directly supports the plan's strategic goal of providing access to innovative higher education programs that prepare students for constantly changing academic, societal and career/workplace opportunities. These programs support this in a number of specific ways:

The computer networking program is currently developing courses in data storage, cloud and security technologies to keep its curricular content current with industry needs. In addition, the program has begun to examine the need for a program in information technology within the healthcare industry. This addresses plan goal 2.1.2 of determining the need for new degree, certificate, and continuing education programs in Science, Technology, Engineering and Math (STEM).

Currently continuing education (CE) students can enroll in CCNA credit courses, and the faculty are looking at potential expansion of this option to Windows Server 2008 courses in order to better serve the needs of the students in our region. Moreover, beginning in the fall semester of 2013,

students that have successfully completed as many as two of the four courses in the CCNA sequence as CE students will have the opportunity to request transcript credit for those courses should they decide to seek a degree or certificate. Collectively, these plans address plan goal 2.2.1, to provide more enrollment opportunities for (a) CE students to take credit courses and (b) Credit students to take CE courses, thus providing Collin students a well-rounded, job-skills centered education.

Currently the program is working with the Department of Labor funded NISGTC grant working group to launch new initiatives using lab simulation technologies to enhance distance learning opportunities for the hands-on lab components of many of the courses in these programs. This capability will allow students to pursue practice with hands-on laboratory activities when off-campus, and it could provide an opportunity for both programs to offer courses in hybrid or online delivery modes that have not been possible prior to this point. This addresses plan goal 2.3.1: Initiate programs and marketing strategies that focus on re-careering the unemployed and underemployed.

The computer networking programs are actively supporting strategic goal 2.5: Partnerships with local ISDs will be expanded leading high school students to certificates and associate degrees at Collin. Recently an articulation agreement has been agreed to between Collin College and Frisco ISD to allow students in their junior year to complete the first two (of four) CCNA courses at Frisco ISD's CTE Center for dual credit. These same students subsequently take the final two courses (also for dual credit) in the sequence at Collin's Preston Ridge Campus as seniors, providing them with an opportunity to sit for the CCNA certification exam shortly after high school graduation. In addition, these students have gotten a very strong start toward a certificate or AAS degree in either of Collin's computer networking programs. This arrangement with Frisco ISD is made possible by the fact that Jerry Bledsoe, the Cisco instructor at Frisco ISD's CTE center is an associate faculty member at Collin College.

Both programs have reached out to a number of other area school districts, including Allen, Prosper, Wylie, McKinney, and Rockwall with technical dual credit offerings for the 2013-2014 academic year. Two courses, CPMT 1405-IT Essentials and ITNW 1358-Network+, are targeted to introduce dual credit students to the field of information technology, and students that successfully complete these courses will be able to pursue two professional certifications from CompTIA shortly before or immediately after high school graduation. As we begin to develop relationships with the school districts and with the students at all of these sites, we anticipate that larger numbers of students will begin to think of Collin as a viable option for their future educational needs. Should student demand be sufficiently strong in the future at any of these sites, the faculty will begin to consider expanding course offerings to include the Microsoft courses.

Finally, both programs are initiating research into the development of a common career cluster in information technology to assist students with the planning of their future career and educational goals. Close relationships with other programs at Collin such as Information Systems-Cybersecurity, etc. will be highlighted. This effort addresses goal 2.6.1: identify and establish career cluster courses for all workforce programs at Collin.

II. THECB Requirements

The Computer Networking Technology and the Cisco Systems Computer Networking Technology Programs adhere to the Texas Higher Education Coordinating Board (THECB) Requirements for Workforce Education Programs.

A. Documented Program Demand

The Occupational Outlook Handbook published by the U.S. Bureau of Labor Statistics states that Network and Computer Systems Administrators are in high demand and that employment of individuals trained to pursue these careers is expected to grow by 28% during the 2010-2020 decade. This represents a level of growth that is twice as fast as the average growth in employment for all occupations. In addition, The North Central Texas Workforce Board identified Network and Computer Systems Administrators as a Targeted Occupation in our region effective February 2012.

B. Effective Use of Program Advisory Committees

Collin College has established a common Program Advisory Committee for the computer networking technology programs at Collin College due to the significant amount of content that is shared between these programs. The advisory committee serves a crucially important consultative role to guide the development of program goals and objectives, provide real-time input into the occupation-based competencies necessary to be incorporated into the program, suggest program revisions and advise the college on the adequacy of program equipment and facilities as well as to provide input on the selection and acquisition of new equipment. Additionally, the advisory committee assists program faculty in identifying local business/industry leaders that can provide students with external learning experiences, employment, and placement opportunities, it assists in the professional development of the faculty, and it assists in promoting and publicizing the program to the community. Collectively these functions keep the program relevant to industry needs, allowing graduates of these programs the best possible opportunity to secure employment.

The advisory committee is composed of individuals who broadly represent the demographics, including ethnic and gender diversity, of Collin's service area as well as the occupational fields encompassed by these programs. Members are drawn from both the private and public sectors with an emphasis on business, industry, and labor organizations. All of the members of the advisory committee for the Computer Networking Technology and Cisco Systems Computer Networking Technology programs are deeply knowledgeable about the knowledge, skills and abilities needed by program graduates to succeed in the workplace.

The THECB requires the advisory committees to meet in person a minimum of once each year and should, if possible, have a quorum present. Collin College strongly encourages that each committee meet face-to-face a minimum of twice during each academic year. The Director of Engineering maintains contact with the committees throughout the year by email, fax, phone, or videoconference.

Business/Industry Affiliations of Computer Networking Advisory Committee Members	
Network Solvers	Consultant
Stonebriar Community Church	Pathway Enterprises
Allen High School	Cisco Systems
Frisco ISD CTE Center	Cybersecurity Consultant
Baylor Medical Center	Convergence Resources
Westron Communications	Baylor Medical Center
PolyCom	

All meetings of the advisory board are recorded in official minutes, and the minutes are expected to include: (a) identification of committee members (name, title, affiliation); (b) an indication of the committee members' presence or absence from the meeting; (c) the names and titles of others present during the meeting; (d) the signature of the recorder; and (e) evidence that industry partners have taken an active role in making decisions that affect the program.

Examples of advisory meeting minutes are shown in Appendix A. Please note that the titles of committee members have not been recorded. The Director of Engineering has been notified of these omissions and future minutes will contain all five of the criteria noted above.

C. Identification of Program Competencies

Academic program competencies have been targeted for both programs that prepare students to sit for a wide variety of industry standard professional certifications. Students exiting our programs are well prepared to sit for these certifications, providing our successful completers with independent assessments of the academic content covered in these programs. We are in the process of explicitly identifying the workplace competencies taught in all program courses that adhere to the standards set forth by the Secretary's Commission on Achieving Necessary Skills (SCANS). These will be explicitly indicated on course syllabi in time for Fall 2013. Current syllabi for all program courses can be found in Appendix B.

D. Program Structure

a. General Education Requirements

The AAS degrees in both of the computer networking programs at Collin require 16 semester credit hours (SCH) of general education courses, meeting the minimum of 15 hours required by the Southern Association of Colleges and Schools Commission on Colleges (SACS) and the THECB. In addition, both programs require one course in each of the following three areas: humanities/fine arts, social/behavioral sciences, and mathematics/physical sciences. All of the courses that a student may take to satisfy the general education requirements for the AAS degrees are found within the ACGM.

b. Program Length and Technical Content

The structures of both programs adhere to the THECB rules for the chosen degree, certificate or award that a student wishes to pursue. The AAS degree in Computer Networking Technology comprises 69 SCH, fitting within the guidelines of the 60-72 SCH requirement of the THECB. Moreover the technical specialty (Program CIP Code 11) comprises 71 % of the Computer Networking Technology degree. The AAS in Cisco Systems Computer networking Technology also comprises 69 SCH, fitting within the

guidelines of the 60-72 SCH requirement of the THECB. In this program the technical specialty (Program CIP code 11) comprises as much as 73% of the Cisco degree. Degree plans from the Collin College website can be found in Appendix C.

c. Selection of Program Courses

All of the program courses incorporated in the degree plans are derived from either the WECM or ACGM course inventories approved by the THECB.

d. Choice of Prerequisites

All college level, non-developmental courses which are required course prerequisites and/or requirements for entry into a degree or certificate are included in the total hours for the various awards and are clearly identified in the approved curriculum plan. No developmental course hours are included in the total credit hours for the associated awards. The AAS degrees in Computer Networking Technology and in Cisco Systems Computer Networking Technology are structured to be completed within two years of full-time attendance, including the prerequisites.

e. Course Sequencing

The curriculum plans developed for both computer networking programs provide for appropriate course sequencing to promote student attainment of skills and competencies. Collin College ensures that credit curricula demonstrate integration of academic and technical competencies/courses.

f. Length of Semesters

Course instruction for both computer networking programs incorporate term lengths of anywhere from 8-16 weeks. The 8-week terms provide sufficient opportunity for reflection while enhancing a student's chance to complete the programs in timely manner. In no cases do we award more than one SCH per week of instruction.

g. Advanced Standing

Advanced standing in the computer networking programs has not been awarded. Beginning in the Fall 2013, Collin College will begin allowing students to request that academic credit be awarded for a maximum of two of the four CCNA courses (ITCC 1301, ITCC 1304, ITCC 2308, ITCC 2310) taken via Collin College's Continuing Education program. Students taking these courses through the continuing education division at Collin college sit in the same classrooms as the credit students, and they are required to take the same skills exams and final exams in order to be allowed to move on to subsequent courses in the sequence. Because of this fact, we are assured of meeting SACS principle 3.4.8 which states "The institution awards academic credit for course work taken on a noncredit basis only when there is documentation that the noncredit course work is equivalent to a designated credit experience."

h. Establishment of Program Linkages

The computer networking programs are linked to a number of local independent school districts through Collin's efforts to develop strong technical dual credit offerings, and a number of the courses in these programs are required coursework in the college's closely related programs in Convergence Technology and Information Systems-Cybersecurity. Thus students have an opportunity to initiate instruction in one of

computer networking programs and transition to another if their interests take them in the direction of an alternative program. Finally, these programs provide a strong background for a student to pursue additional education at the bachelor's degree level in information technology and closely related fields.

i. Verification of Workplace Competencies

To verify that a student has achieved entry-level workplace competencies, Collin College's Computer Networking Programs provide two available options in each program.

The first option is a series of industry standard professional certifications such as those sponsored by Cisco Systems (Cisco Certified Entry-level Network Technician (CCENT), Cisco Certified Network Associate (CCNA), Cisco Certified Network Professional (CCNP), etc.), CompTIA, the IT industry association (A+, Network+, Security+, etc.), or Microsoft Corporation (Microsoft Certified Solutions Associate (MCSA), Microsoft Certified Solutions Expert (MCSE), etc.).

The second option is each award (AAS degree or certificate) in both programs has a course identified as a capstone course to provide students with assignments involving simulation of the workplace in the form of case studies and/or employment scenarios.

The third option is the potential for an external learning experience via ITNW 1380-Cooperative Education-Computer Systems Networking and Telecommunications which can be taken for elective credit in both of the programs under review.

- Collin College's external learning experiences are governed by a written, signed agreement between Collin College, and the organization providing the experience. Collin College retains copies of such agreements and they are available for review by the Coordinating Board staff. The affiliation agreements indicate what services each institution is responsible for and the timeline for expiration or renewal. The renewal process for sites outside of Collin's service area is timed to coincide with the Higher Education Regional Council's approval process.
- Collin assures that the external learning experience is consistent with industry standards, supports specific written objectives outlined by Collin College, and emphasizes current practices in the field of specialization.
- Prior to the beginning of the external experience, the Collin College provides both the student and the external site with written documentation of the objectives, instructional strategies, and evaluation mechanisms of the external learning course.
- Collin College approves and evaluates all training locations and evaluates all faculty members who supervise students. The on-site supervisor of each external experience is confirmed to have appropriate qualification in the computer networking discipline. Written evaluation documents are maintained by Collin College.
- A written External Experience Evaluation Form that is based upon the student's learning plan and that describes the student learning outcomes is developed by the instructor/Co-op director in conjunction with the supervisor at the external

site, and a copy is provided to the supervisor at the external site. This document is maintained at Collin College.

- ❖ Prior to the external experience, each participating student is provided a statement of the expectations of the external site.
- ❖ Any student undertaking an external learning experience has completed a coherent sequence of courses in an AAS degree or certificate plan. Each participating student is in contact with a designated instructor (college faculty or designated employee at the external site) while at the work site.

j. Maximum Number of External Contact Hours

Both the Computer Networking Technology and the Cisco Systems Computer Networking Technology programs conform to the THECB requirement of no more than 1008 contact hours at an external site.

E. Average Number of Program Completers Over the Prior 5-year Period

In order to avoid being labeled as a low producing program, all workforce programs must show each year that they have produced an average of 5 completers per year (AAS degrees and certificates) over the last five year period. Tables I & II (shown below) list the number of duplicated program completers for each program (and award). The Marketable Skills Achievement Award (MSAA) granted in the Cisco program is awarded to students completing the four courses designed to prepare students to sit for the CCNA exam, and as such it represents a good proxy for overall student demand for computer networking education in our service area/region. The MSAA does not count toward the number of completers needed to avoid categorization as a low-producing program.

Since both of these programs represent majors with the same six-digit CIP code, they are reported together to the THECB. The certified numbers of completers as reported to the Coordinating Board on the CBM-00M report is shown in Table III. (If any student captured more than one award in a given year, that student is only counted once for the purposes of the CBM-00M report.) As the data in Table III shows, collectively these two programs are meeting the THECB threshold to avoid being categorized as low-producing.

Table I – Duplicated Computer Networking Technology Program Completers

	2008	2009	2010	2011	2012	Total
AAS	3	4	8	3	7	25
Certificate	2	2	4	2	4	14
Total Degree/Cert. Completers	**5**	**6**	**12**	**5**	**11**	**39**

Table II – Duplicated Cisco Systems Computer Networking Technology Program Completers

	2008	2009	2010	2011	2012	Total
AAS	5	1	4	4	5	19
Certificate	1	1	1	2	2	7
Total Degree/Cert. Completers	**6**	**2**	**5**	**6**	**7**	**26**
MSAA	40	44	4	64	77	229
Total Awards	**46**	**46**	**9**	**70**	**84**	**255**

Table III - Certified (Unduplicated) Computer Networking Technology (incl. Cisco) Program Completers as Reported on the CBM-00M Report

	2008	2009	2010	2011	2012	Total
AAS	6	5	12	7	12	42
Certificate	5	4	5	5	11	30
Total Degree/Cert. Completers	**11**	**9**	**17**	**13**	**23**	**72**
MSAA	56	44	4	62	76	242
Total Awards	**67**	**53**	**21**	**75**	**99**	**314**

F. Percentage of Graduates Securing Employment in the Field and Average # Months to Employment

Students pursuing degrees from either of these programs are preparing to enter the workforce upon completion of their degrees/certificates. The data in Table IV are taken from the THECB's Automated Student and Adult learner Follow-Up System (ASALFS) that tracks whether students are gaining employment or enrolling in another institution for additional education following completion of a degree or certificate (i.e. successful outcomes). The data in Table IV reveal that students completing these programs are finding employment or continuing on with their education.

Table IV - Percentage of Graduates Securing Employment or Enrollment in Further Education for Computer Networking Technology (incl. Cisco)

Academic Year	Unduplicated Graduates	Successful Outcomes (#)	Successful Outcomes (%)
2006-07	7	7	100%
2007-08	8	8	100%
2008-09	9	9	100%
2009-10	12	10	83%
2010-11	10	10	100%
Totals	**46**	**44**	**96%**

Over the five year period of the data covered in Table IV, 96% of the graduates of these two programs are achieving successful outcomes. The question of whether these completers are achieving employment within their field is unknown.

At this time it is unknown how long it is taking graduates of the computer networking programs to find employment. This information is not captured within the data that we have available.

G. Licensure Pass Rate

While a number of industry standard certifications are available for the students pursuing degrees in these programs to obtain, data about student success rates on the relevant certification exams is protected by the certification agencies.

III. Federal Requirements

A. Program Costs:

Program	Credit Hours	Tuition In-County	Tuition out-of-County	Tuition Out of State	Fees and Expenses	Books
Cisco Systems Computer Networking Technology - AAS	71	$ 2,637.00	$ 5,193.00	$ 9,098.00	$ 200.00	$ 3,045.00
Cisco Systems Computer Networking Technology - Certificate	28	$ 1,044.00	$ 2,052.00	$ 3,592.00	$ 60.00	$ 745.00
Computer Networking Technology - AAS	69	$ 2,563.00	$ 5,047.00	$ 8,842.00	$ 230.00	$ 3,935.00
Computer Networking Technology - Certificate (MCSA)	18	$ 670.00	$ 1,318.00	$ 2,308.00	$ 50.00	$ 1,546.00
Computer Networking Technology - Certificate (MCSE)	29	$ 1,081.00	$ 2,125.00	$ 3,720.00	$ 105.00	$ 2,433.00

Examples of student program cost analyses are shown in Appendix D

B. Gainful Employment Data:

Major	Area	Award	Total	Working Only	Working And Enrolled	All Working	All Enrolled	4th Qtr Mean Wage	4th Qtr Median Wage	Mean Annual Wage	4th Qtr Employment Rate
2009											
	Computer Systems Networking and Telecommunications	Associate	5	3	2	5	2	$12,947	$12,232	$53,906	100%
	Computer Systems Networking and Telecommunications	Certificate	51	18	20	38	29	$18,736	$14,236	$62,923	75%
2010											
	Computer Systems Networking and Telecommunications	Associate	11	7	2	9	3	$10,052	$10,030	$44,142	82%
	Computer Systems Networking and Telecommunications	Certificate	4	1	1	2	2			$0	50%
2011											
	Computer Systems Networking and Telecommunications	Associate	7	5	1	6	2	$11,693	$11,491	$0	86%
	Computer Systems Networking and Telecommunications	Certificate	3	1	2	3	2			$0	100%
	Computer Systems Networking and Telecommunications	Marketable Skills	60	21	20	41	29	$14,140	$11,820	$0	68%

No data in the Mean Annual Wage field indicates that data is unavailable.

The gainful employment data above were supplied by Collin's Institutional Research Office.

IV. Program Literature:

List all program literature (course descriptions, degree plans, catalog entries, etc.) and provide last date updated. All program literature must be reviewed and updated no earlier than three months prior to the program review due date.

Title	Type	Last Updated
CPMT 1405 IT Essentials I: PC Hardware and Software Provides comprehensive overview of computer hardware and software and an introduction to advanced concepts. Lab required. 4 credit hours. (W)	Course Description	12/07/2012
ITCC 1301 CCNA 1 Cisco Exploration I - Network Fundamentals A course introducing the architecture, structure, functions, components, and models of the internet. Describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Lab required. 3 credit hours. (W)	Course Description	12/07/2012
ITCC 1304 CCNA 2 Cisco Exploration 2 -Routing Protocols and Concepts This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes. Lab required. Prerequisite: ITCC 1301. 3 credit hours. (W)	Course Description	12/07/2012
ITCC 2308 CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless This course helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Detailed explanations of LAN switch operations, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. Lab required. Prerequisite:	Course Description	12/07/2012

ITCC 1304. 3 credit hours. (W)		
ITCC 2310 CCNA 4 Cisco Exploration 4 -Accessing the WAN This course explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Describes user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Discuss the special network services required by converged applications and an introduction to quality of service (QoS). Lab required. Prerequisite: ITCC 2308. 3 credit hours. (W)	Course Description	12/07/2012
ITCC 2454 CCNP Routing-Implementing IP Routing *Formerly ITCC 2471* How to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers. Lab required. Prerequisite: ITCC 2310 or CCNA Certification and consent of the Program Director. 4 credit hours. (W)	Course Description	12/07/2012
ITCC 2455 CCNP Switch-Implementing IP Switching *Formerly ITCC 2472* How to implement, monitor, and maintain switching in converged enterprise campus networks. How to plan, configure, and verity the implementation of complex enterprise switching solutions. How to secure integration of VLANs, WLANs, voice and video into campus networks. Lab required. Prerequisite: ITCC 2310 or CCNA Certification and consent of the Program Director. 4 credit hours. (W)	Course Description	12/07/2012
ITCC 2456 CCNP TSHOOT-Maintaining and Troubleshooting IP Networks *Formerly ITCC 2473* How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches. Lab required. Prerequisite: ITCC 2454 and ITCC	Course Description	12/07/2012

2455 or consent of the Program Director. 4 credit hours. (W)		
ITCC 2470 Cisco CCNA Security The Cisco CCNA Security curriculum is taken in preparation for the Implementing Cisco ISO Network Security (IINS) Certification Exam (640-453) leading to the Cisco CCNA Security Certification. The course develops knowledge and skills in the network security area using the available Cisco tools and configurations. Through in-class lecture and lab sections, the following expertise is developed in the following areas: Protocol Sniffers/Analyzers, TCP/IP and common desktop utilities, Cisco IOS software, Cisco VPN clients, and Packet Tracer (PT). Lab required. Prerequisite: ITCC 2310 or CCNA Certification and consent of Program Director. 4 credit hours. (W)	Course Description	12/07/2012
ITMT 1300 Implementing and Supporting Microsoft Windows XP Professional Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows XP Professional in a variety of stand-alone and network operating system environments. In-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows XP Professional. Microsoft Exam #70-270. Prerequisite: ITNW 1358 or consent of Program Director. Lab required. 3 credit hours. (W)	Course Description * Course being obsoleted in favor of Windows 7 course (ITMT 1370)	12/07/2012
ITMT 1370 Configuring and Supporting Microsoft Windows 7 Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows 7 in a variety of stand-alone and network operating system environments. In-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows 7 (MS 70-680). Lab required. Prerequisite: ITNW 1358 or consent of Program Director. 3 credit hours. (W)	Course Description * New course Fall 2012	12/07/2012
ITMT 1440 Managing and Maintaining a Microsoft Windows Server 2003 Environment Managing accounts and resources, maintaining server resources, monitoring server performance, and safeguarding data in a Microsoft Windows Server 2003 environment. Microsoft Exam #70-290. Lab required. Prerequisite: ITMT 1300 or consent of Instructor or Program Director. 4 credit hours. (W)	Course Description * Course being obsoleted in favor of Server 2008 courses	12/07/2012
ITMT 1450 Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services Implementing routing; implementing, managing, and	Course Description * Course being	12/07/2012

maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. Microsoft Exam #70-291. Lab required. Prerequisite: ITMT 1440. 4 credit hours. (W)	obsoleted in favor of Server 2008 courses	
ITMT 1455 Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure Planning and maintaining a Windows Server 2003 network infrastructure. Microsoft Exam #70-293. Lab required. Prerequisite: ITMT 1450. 4 credit hours. (W)	Course Description * Course being obsoleted in favor of Server 2008 courses	12/07/2012
ITMT 2400 Planning, Implementing, and Maintaining a Microsoft Server 2003 Active Directory Infrastructure Windows Server 2003 directory service environment. Includes forest and domain structure; Domain Name System (DNS); site topology and replication; organizational unit structure and delegation of administration; Group Policy; and user, group, and computer account strategies. Microsoft Exam #70-294. Lab required. Prerequisite: ITMT 1455 or consent of Instructor or Program Director. 4 credit hours. (W)	Course Description * Course being obsoleted in favor of Server 2008 courses	12/07/2012
ITMT 2440 Designing Security for Microsoft Networks Assembling the design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. Includes decision-making skills through an interactive tool that simulates real-life scenarios. Focuses on collecting information and sorting through details to resolve a given security requirement. Microsoft Exam #70-298. Lab required. Prerequisite: ITMT 2400. 4 credit hours. (W)	Course Description * Course being obsoleted in favor of Server 2008 courses	12/07/2012
ITMT 2450 Implementing and Managing Microsoft Exchange Updating and supporting a reliable, secure messaging infrastructure used for creating, storing, and sharing information by using Microsoft Exchange Server 2003. Includes a significant amount of hands-on practices, discussions, and assessments to assist students in becoming proficient in the skills necessary to update and support Exchange Server 2003. Microsoft Exam #70-284. Lab required. Prerequisite: ITMT 1440. 4 credit hours. (W)	Course Description * Course being obsoleted in favor of Server 2008 courses	12/07/2012
ITMT 2401 Windows Server 2008 Network Infrastructure Configuration A course in Windows Server 2008 networking infrastructure to	Course Description	12/07/2012

include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security. (MS 70-642). Lab required. Prerequisite: ITMT 2402. 4 credit hours. (W)	* New course Fall 2012	
ITMT 2402 Windows Server 2008 Active Directory Configuration A study of Active Directory Service on Windows Server 2008. Concepts such as Domain Names System (DNS) for Active Directory within an enterprise network environment. (MS 70-640). Lab required. Prerequisite: ITNW 1358. 4 credit hours. (W)	Course Description * New course Fall 2012	12/07/2012
ITMT 2422 Windows Server 2008 Applications Infrastructure Configuration A course in the installation, configuring, maintaining, and troubleshooting of an Internet Information Services (IIS) 7.0 web server and Terminal Services in Windows Server 2008 (MS 70-643). Lab required. Prerequisite: ITMT 2401. 4 credit hours. (W)	Course Description * New course Fall 2012	12/07/2012
ITMT 2451 Windows Server 2008: Server Administrator In-depth coverage of the skills necessary for the entry-level server administrator or information technology (IT) professional to implement, monitor and maintain Windows Server 2008 servers. (MS 70-646). Lab required. Prerequisite: ITMT 2401. 4 credit hours. (W)	Course Description * New course Fall 2012	12/07/2012
ITMT 2456 Windows Server 2008: Enterprise Administrator A capstone course in the design of Windows Server 2008 Enterprise Network Infrastructure that meets business and technical IT requirements for network services. (MS 70-647). Lab required. Prerequisite: ITMT 2451. 4 credit hours. (W)	Course Description * New course Fall 2012	12/07/2012
ITNW 1358 Network+ Assists individuals in preparing for Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional. Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Lab required. 3 credit hours. (W)	Course Description	12/07/2012
ITNW 1380 Cooperative Education -Computer Systems Networking and Telecommunications Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)	Course Description	12/07/2012

ITNW 2473 Information Storage Management (EMC) The Information Storage Management course teaches the skills required in designing Storage Systems using Storage Networking Technologies and Virtualization concepts, Business Continuity approaches, and Storage Security and Management strategies. Lab required. Prerequisites: ITMT 1300 and ITNW 1358. 4 credit hours. (W)	Course Description	12/07/2012
ITNW 2474 Advanced Computer Networking Case Study A study of how to design networks in a hierarchical, modular fashion, design WAN networks, develop IP addressing, and select protocols for various designs. Also, students will learn how to assess security and the implications of voice and wireless traffic. A case study puts students in the role of a network administrator proposing solutions to design problems. Study advanced network deployment and methods used to configure network devices for effective LAN and WAN traffic management. Topics include designing internetworks, managing traffic, configuring various routing and switching protocols, and techniques used for network security. Lab required. Prerequisite: ITCC 2310 or CCNA Certification and consent of Program Director. 4 credit hours. (W)	Course Description	12/07/2012
ITSC 1316 Linux Installation and Configuration Introduction to Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux. Lab required. Prerequisite: ITNW 1358 or consent of Instructor or Program Director. 3 credit hours. (W)	Course Description	12/07/2012
ITSY 2300 Operating System Security Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards. Lab required. Prerequisite: Any ITCC, ITMC, ITMT or ITNW course, or consent of Instructor or Program Director. 3 credit hours. (W)	Course Description	12/07/2012
Degree Plans	Collin College Website and 2011-2012 Catalog (See Appendix C)	Program Web Page: 1/3/2013
Computer Networking Pamphlet	Tri-fold Pamphlet with AAS-Computer	Fall 2012

	Networking Technology degree plans insert. (See Appendix E)	
Catalog Program Descriptions	Collin College Catalog	Spring 2012

V. Transferability analysis for instructional programs.

Program	Modifications	Exceptions	University(ies) Accepting as Transfer
BA in Information Technology	Up to 21 workforce hours may be accepted toward the BA in IT program.	Workforce hours must be in a coherently organized topic area to support a major in information technology.	University of North Texas

VI. List all university/business and industry partnerships and describe them.

University/Business & Industry	Partnership Type	Special Requirements
Cisco Systems	Collin College named a Cisco Networking Academy and a National Instructor Training and Support Center	Train Cisco instructors and support Cisco Networking Academies nationally.
Microsoft	Collin College named a Microsoft IT Training Center	None
EMC	Collin College named a member of the EMC Academic Alliance	None

The Cisco Systems Computer Networking faculty members in the Engineering Technology department of Collin College sought designation as a Cisco Networking Academy. This designation has been in place for approximately fifteen years, allowing Collin College to provide its computer networking students with the most thoroughly developed and professionally accepted computer networking curriculum available in the U.S. Cisco Systems provides a tested curriculum for the classroom, specifications for required lab equipment, a well-developed process for certifying Cisco Academy Instructors to ensure content mastery, and a well-structured set of criteria for students to meet before being allowed to advance to more advanced courses. In addition, Cisco Systems has developed and maintains the certification process for granting the industry standard CCENT, CCNA and CCNP certifications (among others),

allowing students the opportunity to earn some of the most meaningful professional certifications in the information technology industry.

Additionally, the faculty have sought to have the Cisco Networking Academy at Collin to be designated as a National Instructor Training and Support Center. This designation allows Collin's computer networking faculty to train and certify instructors as Cisco Certified Academy Instructors, to support smaller Networking Academies (many of which are in local school districts) within our service area and region.

Our designation as a Microsoft IT Training Center likewise provides the faculty with significant opportunities to support their efforts in the classroom where Microsoft Server 2008 technology is being taught to Collin's computer networking students. Finally, our relationship with EMC provides us with modern curriculum and important connections with this leader in large scale data storage.

VII. Complete and Attach Facilities and Resources Template

(See pp. 30)

VIII. Advisory Committee & Recommendations

Among the discussions with and commitments from the Advisory Board, three significant curricular directions were given for the computer networking programs from the industry perspective.

a. Computer Networking Case Study Class

The need for a problem/solution based case study class that simulates real world examples at a minimum of the CCNA level was recommended. Based on innovative instruction and curriculum development by Prof. Cope Crisson, a course was put together by the faculty. The simulation of a real world problem was successfully executed in the course. A number of Advisory Board members were able to attend the final presentations by the students to offer real world/real time feedback on the solutions rendered by each of the student groups.

b. Conversion from MS Server 2003 Technology to MS Server 2008 Technology

For a number of years, the Advisory board has been against a conversion from MS Server 2003 Technology to MS Server 2008 Technology. The conversion has been opposed based on the realization that local businesses were running >75% of their operations on MS Server 2003 Technology. As our students are entering these organizations at the entry level, the advisory board felt that students would benefit from the ability to backstop the older technology. During the past two advisory meetings, the direction given by the group has shifted to our students' need for MS Server 2008 Technology. The shift has been due to recognition that as the economy comes back, there will be a shift to the newer technology by business. Further, Microsoft has indicated that the Server 2003 Technology will no longer be technically supported after 2014.

c.Virtualization Technology- VM Ware

In Advisory Board meetings, it has been very clear that a critical path for our students is the concept of hardware and software virtualization. VM Ware is the industry standard in this area of technology. Even though it has been a key area, budgetary issues associated with the procurement of equipment and maintenance

of that equipment have limited the ability of the program faculty to introduce these topics into the curriculum. Since hiring Rhonda Slack as an associate faculty member in fall 2011, the faculty now has a VM Ware Certified instructor available to guide the development of this curricular initiative. During the last meeting, the computer networking programs were able to target this technology on the curricular roadmap utilizing the virtual lab equipment provided by the Department of Labor-funded NISGTC grant at Collin College. A local needs course to address this area was approved by the THECB for the 2013/2014 academic year. This action will allow us to offer key virtualization technology in the form of the industry-leading platform, VM Ware, in the Spring semester of 2014.

Advisory Committee Meeting Date	Attach Minutes
December 20 , 2011	See Appendix A
March 30, 2012	See Appendix A
October 26, 2012	Completed Minutes not yet available.

INSTITUTIONAL RESEARCH DATA

Unduplicated, actual, annual enrollment data;
Definitions of data elements can be found on CougarWeb under Teaching & Learning/Program Review/Institutional Research Files for Program Review

- Program Enrollment (Pending programming by Administrative Programming Services)- **Not available at the time of this review.**
- Student/Faculty Ratios (Pending programming by Administrative Programming Services) **Not available at the time of this review.**
- Average Class Size (Pending programming by Administrative Programming Services) **Not available at the time of this review.**
- Grade Distributions (Pending programming by Administrative Programming Services) **Not available at the time of this review.**

- Contact Hours Taught by Full-Time and Part-Time Faculty

  One measure of Collin College's commitment to learning and academic excellence is reflected in the number of contact hours taught by full-time faculty. As shown in Table V below, over the last four academic years, full-time faculty members instructed the

majority of Collin's computer networking students. While all of Collin's full- and part-time faculty members are highly experienced and well-credentialed, the advantage that full-time faculty interaction provides to students is availability. Full-time faculty members are more available to answer questions and respond to concerns outside of class, and full-time faculty members are better positioned to interact with students in ways that can include advising student organizations or serving as student advisors when faculty members accompany students to conferences, presentations, etc.

Table V. Ratio of Student Contact Hours Taught By Full and Part-Time Faculty

Computer Networking Tech. (incl. Cisco)	Full Time	Part Time
Fall 2009	58%	42%
Fall 2010	58%	42%
Fall 2011	56%	44%
Fall 2012	59%	41%

- Student Satisfaction

  The Noel – Levitz Student Satisfactory Inventory (see appendix F) was used to measure student satisfaction for the college as a whole. The survey was administered every other year ('08, '10, and '12), and Collin's results are compared with a National average for comparable community colleges across the country. Even though these numbers measure the entire student population at Collin, it is assumed student satisfaction in the computer networking programs would not differ to a significant degree. The survey shows Collin students are generally quite satisfied with their experience at the college. Moreover, Collin's scores improve with each survey, peaking in 2012. Collin's student satisfaction mirrors that of other community colleges around the nation. Collin scored higher than the national average on all three surveys in the category "If you had to do it all over again, would you enroll here again."

- Employer Satisfaction

  The only recent survey data we available is an employer satisfaction survey conducted by Collin College in 2009. Surveys were sent to 1,058 employers who had registered with Collin College's Career Services Office during the prior three years for purposes of job recruitment. (Military recruiters were omitted from the list.) An additional 95 surveys were mailed to businesses that did not provide an email address. Of the 1153 surveys sent out, only 113 companies responded (representing an approximately a10%

response rate). Of those responding the most commonly cited industries represented in the responses were business management (20), child development (8), medical transcription (8), office systems support (7), computer information systems (6), photography (6), and database programming (5). Thus no respondents indicated an industry that is typically entered into by graduates of computer networking technology programs, making the relevance of the data suspect for the purposes of this review. Moreover, given the small numbers associated with any given program, the data are only valid when reported for the sample as a whole.

The summery of the survey noted that "Employers appeared to be satisfied with the performance of Collin College graduates in all areas. Students were perceived as performing best in understanding written instructions, and cooperating with others. Areas of greatest weakness were problem solving and technical competence."

- Licensure/Certification Pass Rates –**Not available due to student privacy laws per certification sponsors.**
- Cost Per Completer (not yet defined)- **Not available at the time of this review.**

PROGRAM DEVELOPMENT SINCE LAST PROGRAM REVIEW

1. Summarize assessment activities and actions taken in response since last program review.

   This is the initial program review conducted for the Computer Networking Technology and Cisco Systems Computer Networking Technology programs.

2. Describe any continuous improvement activity if different from assessment.

   As part of the continuous improvement effort, in order to improve student understanding for the ITCC 1304 Systems Skills Test and the Final Exam (in the case of the AAS Computer Networking Technology) and ITCC 2310 Systems Skills Test and the Final Exam (in the case of the AAS Cisco Systems Networking Technology), a Comprehensive Skills Challenge Lab was created and implemented to review concepts in each of these courses. This allows the students see critical material multiple times prior to taking the Skills Test and Final Exam. It is anticipated that this should improve student understanding for both assessments.

   In order to improve student understanding of the methods and techniques used to create a security policy, a case study was developed that assigns students the goal of producing a Security Policy for an IT department that requires the implementation of lessons learned in the ITSY 2300 course. The Case Study is designed to assist the students with understanding the wide array of considerations that must inform the development of an effective security policy, and it serves to provide a framework for achieving one of the major student learning outcomes in this course.

   As mentioned earlier, the program is transitioning from Microsoft Server 2003 Technology to Microsoft Server 2008 Technology as recommended by the Advisory Board. Consistent with these

changes the faculty members have decided that two proficiency labs are needed to assist students with fully appreciating the material being covered in two of the Microsoft courses. In ITMT 2451 a lab will be established in which students will demonstrate proficiency in Administrating Windows Server 2008 by planning and implementing an Active Directory Deployment scenario. This includes creating an Active Directory infrastructure, and creating and modifying account policies. In ITMT 2401 a proficiency lab will be established in which the student will demonstrate proficiency in designing and implementing a Windows Server 2008 Network Infrastructure, by planning and implementing a DNS Server role. This will involve creating a DNS configuration that would address the needs of an enterprise, and include key concepts such as Active Directory Integrated Zones, DNS delegations, zone transfers, and the populating of the DNS database with Host, PTR, and other required records.

3. List program employees (full- time and part-time), their role, credentials, and professional development activity since last program review.

Note: The column labeled "Professional Development since last Program Review," is for the last two years, 2010-2011, 2011-2012.

Employee Name	Role in Program	Credentials	Professional Development since last Program Review
Pete Brierley	Full-Time: Cisco	M.S. Southern Methodist University Cisco Certified Academy Instructor (CCAI) Cisco Certified network Associate (CCNA)	Summer 2010-a) High Impact Technology Exchange Conference-co-presented a seminar on Green Technology Awareness, b) Cisco Regional Conference-presented "Challenge Labs"; Summer 2011-Cloud Computing Conference
Copeland Crisson	Full-Time: Cisco	A.S. Pensacola Junior College B.S. Univ. of North Texas M.L.S Fort Hays State Univ. Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA) Cisco Certified Network Professional (CCNP) CCNA-Security	Summer 2010-Presented at the Cisco Networking Academy Conference; Summer 2011-Presented at the Cisco Networking Academy Annual Conference
Kathy Fant	Full-Time: Cisco	M.S. Univ. of Texas at Dallas Cisco Certified Academy	Prof. Fant is a new faculty member for the 2012-2013

		Instructor (CCAI) Cisco Certified Network Associate (CCNA) Cisco Certified IT Essentials I	academic year. She has not yet had a chance to pursue a complete professional development plan.
Michael Harsh	Full-Time: Cisco	A.A.S. Collin College B.A.A.S Univ of North Texas Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA) Cisco Certified IT Essentials I	Summer 2010- attended the High Impact technology Exchange Conference in Orlando; Fall 2010- a)Attended American Society for Industrial Security (ASIS) Conference in Dallas; b) attended the Custom Electronic Design & Installation; Association Conference in Atlanta; Summer 2011- attended the High Impact Technology Exchange Conference in San Francisco; Fall 2011- presented "Staying Home Forever" at the Green IT Summit/Texas Community College Technology Fair in Plano.
Jeff Gibbons	Full-Time: Cisco, Electronics	B.S.E.E.- University of Texas at Arlington M.S. Southern Methodist University Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA) Cisco Certified IT Essentials I	New Faculty member during the 2010-2011 academic year. In 2011-2012- Attended the week long Network Security Seminar sponsored by the NSF –funded Convergence Technology Center at Collin College (in July 2011). Attended Avnet/Xilinx training on Hardwired CPU/FPGA Fabric Integrated Circuits at the X-Fest Seminar in Dallas.
John Perrine	Full-Time: Cisco	B.A. West Virginia University M.A. West Virginia University M.S. University of Maryland Cisco Certified Academy Instructor (CCAI)	Summer 2010-attended the Cisco Network Academy Conference where he completed the IPv6 Survival Kit class; Completed sixteen (16) hours of advanced coursework for Cisco, and

		Cisco Certified Network Associate (CCNA)	completed the "Instructional practices that support Cisco Academy Student certification Success" class, and the "Wireless in a Packet tracer World" class; 2011-2012 Academic Year- Completed three online training sessions ("Fast and easy Subnetting," "Alternative methods of teaching Subnet Mask Basics: Subnet Masking Without Binary Math," and "A Closer look at IPv6 Transitional Methods", and he attended the Cisco Academy Evolution Webinar.
Jeremy Prince	Full-Time: Cisco/Microsoft	B.S.M.E. Renselaer Polytechnic Institute M.S. Air Force Institute of Technology Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA) Microsoft Certified Trainer	2011-2012 Academic Year- renewed CCNA certification, renewed his Microsoft Certified Trainer certification
Stephen Willis	Full-Time: Computer Networking/Cybersecurity	B.S. University of Texas at Arlington M.S. Tarleton State University Certified Information Systems Security Professional Certified Information Systems Manager Certified in Risk and Information Systems Control Microsoft Certified System Engineer Microsoft Certified System Administrator	2010-2011- Passed the Certified Information Systems Manager certification exam; passed the Security+ certification exam; attended a Fraud Summit hosted by UT-Dallas. 2011-2012- completed the requirements to be Certified in Risk and Information Systems Control; attended the UT-Dallas Executive Briefing on Cybersecurity Risks to Critical Infrastructure by the Department of Homeland Security in March.

		Security+	
Jerry Bledsoe	Part-Time: Cisco	B.S. East Texas Baptist Univ. Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA) Cisco Certified IT Essentials I	N/A
William Bourgeois	Part-Time: Cisco	B.S. Univ. of Wyoming M.S. Univ. of Wyoming Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA)	N/A
Serena Butler	Part-Time: Cisco	M.S. Texas Woman's Univ Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA) Cisco Certified Network Professional (CCNP)	N/A
Karen Cheng	Part-Time: Microsoft	B.S. Cornell University M.S. Southern Methodist University Cisco Certified Network Associate (CCNA)	N/A
Julie Hietschold	Part-Time: Microsoft	A.A.S. Dallas CCC B.S. Kaplan Univ M.S. Kaplan Univ Cisco Certified Network Associate (CCNA) Microsoft Certified Trainer (MCT)	N/A
Jeff Palmer	Part-Time:	A.A.S. Dallas CCC	N/A

	Microsoft	B.S. Kaplan Univ. M.S. Kaplan Univ. Cisco Certified Network Associate (CCNA) Microsoft Certified Trainer (MCT) Certified Information Systems Security Professional (CISSP) Security+	
Scott Rachui	Part-Time: Microsoft	M.S. Univ. of Texas at Dallas Microsoft Certified Trainer	N/A
Rhonda Slack	Part-Time: Microsoft	A.A.S. Dallas CCC Cisco Certified Network Associate (CCNA) Microsoft Certified Trainer (MCT) VMWare Certified Instructor	N/A
Gayle Snyder	Part-Time: Microsoft	A.A.S. Dallas CCC B.S.E. Univ. of Central Arkansas M.S.E. Univ. of Central Arkansas Microsoft Certified Trainer (MCT)	N/A
Paul Wang	Part-Time: Cisco	B.S. Polytechnic Inst of Brooklyn Cisco Certified Academy Instructor (CCAI) Cisco Certified Network Associate (CCNA)	N/A

PROGRAM PLANNING

1. **Summarize expectations and plans for the next five years.**

In the dynamic field of Engineering and, specifically, in Information Technology, it is hard to project specifics a number of years out. As the pace of innovation drives the needs of the local business community, Collin College must respond to those specific local business needs with appropriate and forward looking coursework, innovative co-op opportunities for students and further partnership enhancements with leaders of local technology businesses to ensure that the feedback loop is continuous and fast-paced. To that end, the Engineering Department understands that it is critical over the next five years to enhance our relationship with Cisco Systems Corporation. The college has just signed a new Cisco Learning Academy agreement. In the agreement, Collin College agrees to be an Academy, an Instructor Training Center, and a Support Center. As an Academy, the college can maintain the high standard of academics for our students from the Cisco Academy System. As an Instructor Training Center, the college can continue the tradition of being a training center for instructors from other colleges, and high schools, providing a financial benefit to the Continuing Education Division of the college. However, the principal benefit to having the Instructor Training Center at Collin College stems from the department's ability to train new Associate Faculty to be Cisco Certified Instructors free of charge. This strategy over the next five years will allow us to grow steadily without a training cost and respond as needed to our requirement for trained instructors. Finally, as a Support Center, we are able to support the growth of future Technical Dual Credit opportunities in the Computer Networking area by allowing high schools to link to our support center without a fee. The combination of our being able to train the high school instructors and the support fee waiver makes our five year plan to grow local high school Cisco Academies and expand our Technical Dual Credit offerings viable.

From the perspective of curriculum development, modification and deletion, our five-year plan will be driven by technology trend changes and specific business requirements in our local market. Clearly, the commoditization of IT solutions will drive deletion or modification of entire courses and/or specific modules within courses. Based on inputs from the Advisory Board, the department has begun to commit resources to be ahead of the curve in the following areas: Cloud Computing, Virtualization, SANS Storage, Mobile Device Technology, and, of course, the CyberSecurity aspects of each of these technologies. Support of Cloud Computing will be initially focused on development and deployment of a Cloud + class by our faculty. The Engineering Department will continue to work with EMC Corporation to bring the latest storage technologies to the classroom with upgrades to ITNW 2473. During the Spring 2014 semester, the department will begin to offer VM Ware Virtualization in the form of a local needs course. Finally, as the security threats increase each year during the next five years, the security curriculum will be upgraded and updated (e.g. ITSY 2300). Finally, the Engineering Department is investigating linkages with Health Sciences for a Health Information Technology (HIT) program. As this is an identified local business trend, an investigation of the potential for a new program in this area will be conducted which incorporates local health care providers and their vendors.

During the course of the next five years, modifications and enhancement to some strategic departmental and program logistics will be a key area to departmental and program growth. First, Technical Dual Credit in the area of Computer Networking will be a focus of effort. Activities will range from planting Cisco Academies in local ISD's to providing instructor training for faculty in those ISD's. Second, enhancement of our partnership with Continuing Education will be a strategic goal. Targeted efforts that reach out to local corporations to fulfill needs in the area of Cisco Networking and Microsoft Server 2008 Technology will commence. In the Fall of 2013, the college will begin to offer the ability for a student to transfer two courses in the Cisco Networking area that were taken as "CE" to "for credit". During the same Fall 2013 semester, the Engineering Department will begin to offer CE seats in Microsoft Server 2008 Technology credit classes. These actions to include more CE coursework and ease the transition to "credit coursework" will aid individuals and employees of local businesses that enter our program as CE students.

Finally, as the Engineering Department grows through the above actions in the area of Computer Networking Technology, our capacity requirements will be facilitated by the use of the excess nighttime capacity of the Allen Center. Presently, as a trial effort, the department is offering classes on two nights per week at the center. Beginning in the Fall 2013 semester, the department will begin offering a full schedule of courses at the center.

In summary, over the course of the next five years, there will be much in the way of growth in these two exciting programs. The curriculum trends have been (and will continue to be) ironed out with local industry guidance and support. The logistics to be successful in the above endeavors have been put into place. The capacity requirements for lab space have been addressed by allocation of space at the Allen Center and through the use of Virtual Labs. The Full-time faculty members required for this effort are in place. The Associate Faculty members required for success have been and will continue to be identified from our local industry partners. Finally, through the efforts of the Advisory Board, new technology trends will be discussed and acted upon as they are identified.

2. Provide the next Continuous Improvement Plan

A number of Continuous Improvement Plan (CIP) Activities other than assessment of program level student outcomes were identified as part of the CIP's developed during 2011-2012. Both of the CIP's are shown in Appendix G. In Computer Networking Technology improved student proficiency with routing protocols in ITCC 1304 was targeted as one key outcome that would be improved with the incorporation of a comprehensive skills challenge lab to review concepts prior to the final skills test. Additionally, student proficiency with the fundamentals of cybersecurity was targeted as a second area for improvement through the development of a case study in ITSY 2300 that requires students to construct a security policy for a small business. This allows students to demonstrate their understanding of the fundamentals taught in this crucially important course. Two other actions revolved around the revision of the curriculum for the Microsoft courses to Windows Server 2008 technology.

In Cisco Computer Networking Technology improved student proficiency with four program level outcomes were identified for improvement with the development of skills challenge labs designed to review material prior to the skills tests in the four associated courses. The three program level outcomes (and associated courses) were: a) proficiency in wide area networks (ITCC 2310), b) proficiency with configuration, implementation, maintenance, and troubleshooting methodologies (ITCC 2473), and c) competency with best security practices of Cisco Routing and Switching for Enterprise and Small Businesses (ITCC 2470). Finally, student proficiency with the fundamentals of cybersecurity was targeted for improvement through the development of a case study in ITSY 2300 that requires students to construct a security policy for a small business.

These activities have been developed and are being implemented during the 2012-2013 academic year. Data will be collected over the course of the '12-'13 and the '13-'14 academic years as part of the process of getting "on-cycle" with the new five-year review process that is currently being implemented at Collin College.

FACILITIES AND RESOURCES

FACILITIES

Room/Office Location and Designation	Size	Type	Special Characteristics (i.e. permanent like ventilator hood)	Meets current needs: Y or N	Will meet needs for next five years: Y or N	Describe additional needs for any "N" answer in columns 5 or 6.
PRC H130,131,132,133,134 149	600-1000 sq. ft	PC Lab	Equipment Racks and PCs	Y	Y	
SCC I122,230	600-1000 sq. ft.	PC Lab	Equipment Racks and PCs	Y	Y	

EQUIPMENT, SUPPLIES, MAINTENANCE/REPAIRS

List all equipment valued at $5,000 or more each

Current Equipment Item or Budget Amount	Meets current needs: Y or N	Will meet needs for next five years: Y or N	For any no in columns 2 or 3, justify needed equipment or budget change
NDG Netlab-virtual lab server, storage & related infrastructure	Y	Y	

FINANCIAL RESOURCES

Source of Funds (i.e. college budget, grant, etc.)	Meets current needs: Y or N	Will meet needs for next five years: Y or N	For any no in columns 2 or 3, explain why	For any no in columns 2 or 3, identify expected source of additional funds
College Budget	Y	Y		

Appendix A Advisory Committee Minutes

Computer Networking and Convergence Technology

Advisory Committee Meeting Minutes

CHAIRPERSON: Leo Lorenz, Co-Chair and Andrea Bagwell, Co-Chair		
MEETING DATE: Thursday, December 20, 2011	MEETING TIME: 7:30 AM	MEETING PLACE: PRC, L 215 A
RECORDER: Dave Galley		PREVIOUS MEETING: Thursday, July 15, 2010

1. MEMBERS PRESENT: (Yes/No) OTHERS PRESENT: (Yes/No)

Name and Title		Name and Title		Name and Title	
N	Karen Cheng Research In Motion (RIM)	N	Robert Wright Convergence Resources	Y	Cope Crisson Collin College
N	Andrea Bagwell Stonebriar Community Church	N	Terri Campbell Westron Communications	N	Pete Brierley Collin College
Y	Leo Lorenz Cisco Systems (on phone from undisclosed location)	Y	Jeffrey Palmer CyberSecurity Consultant	Y	Mike Harsh Collin College
N	Steve Young Baylor Medical Center	N	Wes Cunningham Frisco CATE Center	N	Barbara Taylor Collin College
N	Mike Bledsoe Baylor Medical Center	Y	Kip Bledsoe Frisco CATE Center	Y	Serena Butler Collin College
N	Raul Aranda Network Solvers	N	Bryan Baker Allen High School	Y	Dave Galley Collin College
Y	Julie Hietschold Nortel Networks/ Consultant			Y	Jeremy Prince Collin College
				Y	Jon Hardesty Collin College
				Y	Bryan Humphreys Collin College
				Y	Larry Maughan Collin College
				N	Catherine Smith Collin College
				Y	Melody Snow Collin College

Agenda Item	Action Discussion Information	Responsibility
Old Business:	EMC Storage Course	Julie Hietschold
	EECT 2437 Wireless Telephony Systems- What Should Be Taught In This Class?	Pete Brierley
Continuing Business	Committee Member Introductions	All
	Engineering Department Overview	Dave Galley
	Computer Networking Curriculum Overview	Cope Crisson, Jeremy Prince and Mike Harsh
	Industry Trends: Computer Networking	Leo Lorenz and Jeff Palmer
	Industry Trends: Convergence Technology	2 Days Prior Inputs From Robert Wright (Dave Galley)
	High School Alignment	Dave Galley and Kip Bledsoe
	Appropriate Certification For Students	All
	Suggested Outreach	All
New Business:	Pending Changes In The Cisco Academic Academy Structure	Cope Crisson and Serena Butler
	New CCNP Changes Resulting In Computer Networking Case Study Class Opportunity	Cope Crisson
	DHTI Conference	Mike Harsh
	Guest Speakers In Spring Semester Classrooms	Dave Galley
Curriculum Decisions:	Server 2008 Course Strategy	Julie Hietschold and Dave Galley
	VM Ware Course Strategy	All
	Computer Networking Case Study: Design Of Class	Cope Crisson
Other:	N/A	

MINUTES

Key Discussion Points	Discussion
Old Business:	EMC Storage Course: Julie reviewed the outline of the course content as planned.
	EECT 2437 Wireless Telephony Systems- What Should Be Taught In This Class?: As planned after the last meeting, Pete and Terri reviewed the content of our current Convergence Technology course. Pete got Bob Wright and Terri's inputs as to what should be covered in EECT 2437. Dave indicated (in Pete's absence with Pete's inputs) that the course content review had been completed and the course would be offered in the coming term.
Continuing Business:	Engineering Department Overview: An overview of the Department was given by Dave Galley
	Computer Networking Curriculum Overview A curriculum overview was given by Cope Crisson, Mike Harsh, Jeremy Prince, and Dave Galley.
	Industry Trends: Computer Networking Leo and Jeff reported that the local DFW economy continues to strongly support Computer Networking curriculum.
	Industry Trends: Convergence Technology In inputs received before the meeting, Robert reported that the local DFW economy continues to strongly support Convergence Technology curriculum.
	High School Alignment Technical Dual Credit needs to be focused on in the coming year. Kip continued to express support for us moving forward with the Technical Dual Credit approach. Cisco CCNA 1 and 2 are being articulated at the High School Level as Tech. Prep. at this point and CCNA 3 and CCNA 4 being Technical Dual Credit. In addition, a statement was read from Bryan Baker indicating that Allen ISD was interested in allowing Lovejoy ISD students to take classes at Allen High School for technical Dual Credit per Karen Bradley.
	Appropriate Certification For Students: Everyone agreed that the numerous certifications that we offer in this Computer Networking and Convergence Technology were sufficient for our students.
	Suggested Outreach: The committee was complimentary of the support given by the Collin College Faculty to local businesses and the Frisco EDC.

New Business:	Pending Changes In The Cisco Academic Academy Structure: Serena, Cisco Systems Admin., presented and opened for discussion changes in the Cisco Academy structure that were pending for the new year. As many of the plans were still fluid, the committee was able to ask questions, but some of the answers were unknown at the time. It was agreed that this very dynamic situation would be a topic of a faculty meeting after the first of the year and would be discussed in the next

	Advisory Meeting.
	New CCNP Changes Resulting In Computer Networking Case Study Class Opportunity: Cope described the differences between the old and new Cisco CCNP curriculum. The most notable of which was the change to 3 courses from 4. It was discussed that this leaves room in the degree plan for a Computer Networking Case Study class which has been wanted by the faculty and the Advisory Committee for quite some time.
	DHTI Conference: Mike shared with the group his experience at the CEDIA conference. He noted that the department had become a member of CEDIA. This membership would result in benefits for the college in terms of vendor recognition and the potential to offer CEDIA certification classes.
	Guest Speakers In Spring Semester Classrooms: Dave made and appeal to the committee members to consider speaking as industry partners in classrooms during the Spring Semester. It was left to the faculty to get with Advisory Committee Members to set-up these interactions.
Curriculum Decisions:	Server 2008 Course Strategy: After a discussion as to whether the industry was moving to MS Server 2008 in the near future, the answer to this question continued to be "stick with the Server 2003 coursework for the Spring and try to implement Server 2008 coursework in the Fall 2012/Spring 2013 timeframe". The group concluded that, as a college, we should develop the next two MS Server 2008 classes to start. A subgroup comprised of faculty members (Jeremy, Rhonda, and Dave) and Advisory members (Andrea, Julie, and Jeff) agree to give inputs for the transition from Server 2003 to Server 2008.
	VM Ware Course: Jeff indicated that as resources were available, we needed to get virtualized environments into the classroom. Dave indicated that from a budget and timing perspective, a VM Ware course was being considered for implementation in 2013. Jeremy described the fact that we needed to be careful about VM Ware licensing issues. He noted that Virtual Machines were the way to go in this area and, from his consulting experience, the virtual machines should remedy this concern.

	Computer Networking Case Study: Design Of The Class Cope outlined for the group the need to have the class and the structure of the class. He solicited feedback from the group. He discussed the fact that the course would take the student from the Design Phase to the Prototype Phase to the Baseline and Testing Phase and, finally, to the Documentation Phase. The course will be designed to incorporate VOIP and Security. After receiving very positive feedback from the group, Cope asked for industry support. Specifically, he requested that industry members come to the last class presentations and participate by listening and, then posing challenging questions to the students.
Other:	N/A

CHAIRPERSON SIGNATURE: Leo Lorenz Andrea Bagwell	DATE: 9/15/2012	NEXT MEETING:TBD

From: "Leo Lorenz (lelorenz)" <lelorenz@cisco.com>
To: Dave Galley <DGalley@collin.edu>, Melody Snow <MSnow@collin.edu>
Date: 10/26/2012 10:42 AM
Subject: Signed meeting notes

Hey Dave,

Here are my signed meeting notes in jpg format.

I am also attaching a few links that you or your staff can look at to see what my group does.

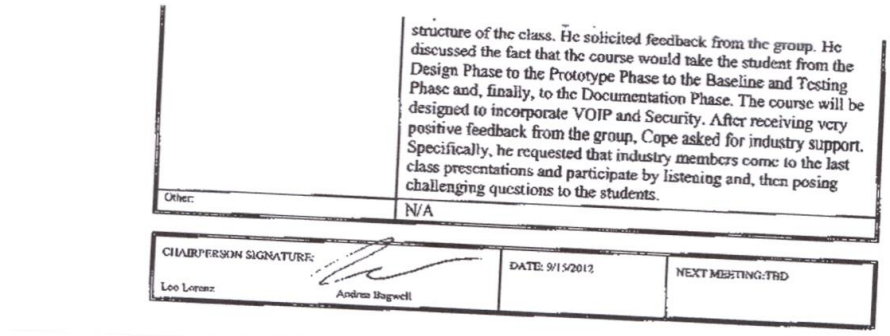
These are the links to the current offerings:

http://www.tinyurl.com/srecollab
http://www.tinyurl.com/sredcv
http://www.tinyurl.com/srebn

Here is the link to our youtube channel with our lab walk thru's:
http://www.youtube.com/user/ciscofieldtrainers

And lastly, you might have access to dCloud, which is what partners and internal Cisco can use to do demos. Notice it is cloud based.
www.cisco.com/go/demo

Please feel free to pass this around to your Networking Academy Instructors. Students would only be able to view the YouTube Channel unless they work for a Cisco Partner.



	structure of the class. He solicited feedback from the group. He discussed the fact that the course would take the student from the Design Phase to the Prototype Phase to the Baseline and Testing Phase and, finally, to the Documentation Phase. The course will be designed to incorporate VOIP and Security. After receiving very positive feedback from the group, Cope asked for industry support. Specifically, he requested that industry members come to the last class presentations and participate by listening and, then posing challenging questions to the students.
Other:	N/A

CHAIRPERSON SIGNATURE: Leo Lorenz Andrea Bagwell	DATE: 9/15/2012	NEXT MEETING:TBD

Leo Lorenz
Virtualization/SMB/Collaboration Systems Engineering Manager
US Partner Organization Tech Ops

lelorenz@cisco.com
Phone: 408-894-1360

Video: lelorenz.ex90.new@cisco.com

CCSI, CCNA, CCNP, MCSE, CNE, CCIE (Voice) - 14131

PRH: Partner Help Desk
Phone: 1-800-Go-CISCO

Cisco Systems, Inc.
2200 E. President George Bush Tpk.
Richardson, TX 75082

Partner Central
Partner Communities

Computer Networking and Convergence Technology

Advisory Committee Meeting Minutes

CHAIRPERSON: Leo Lorenz, Co-Chair and Andrea Bagwell, Co-Chair		
MEETING DATE: Friday, March 30, 2012	MEETING TIME: 7:30 AM	MEETING PLACE: PRC, L 215 A
RECORDER: Dave Galley		PREVIOUS MEETING: Thursday, December 20, 2011

2. MEMBERS PRESENT: (Yes/No) OTHERS PRESENT: (Yes/No)

Name and Title		Name and Title		Name and Title	
N	Karen Cheng PolyCom	Y	Robert Wright Convergence Resources	Y	Cope Crisson Collin College
Y	Andrea Bagwell Stonebriar Community Church	N	Terri Campbell Westron Communications	N	Pete Brierley Collin College
Y	Leo Lorenz Cisco Systems (on phone from undisclosed location)	Y	Jeffrey Palmer CyberSecurity Consultant	N	Mike Harsh Collin College
N	Steve Young Baylor Medical Center	Y	Wes Cunningham Frisco CATE Center	N	Barbara Taylor Collin College
N	Mike Bledsoe Baylor Medical Center	N	Kip Bledsoe Frisco CATE Center	N	Serena Butler Collin College
N	Raul Aranda Network Solvers	N	Bryan Baker Allen High School	Y	Dave Galley Collin College
Y	Julie Hietschold Nortel Networks/ Consultant	Y	Bryan Humphreys Pathway Enterprises	Y	Jeremy Prince Collin College
				N	Jon Hardesty Collin College
				Y	Larry Maughan Collin College
				N	Catherine Smith Collin College
				N	Melody Snow Collin College

Agenda Item	Action Discussion Information	Responsibility
Old Business:	Pending Changes In The Cisco Academic Academy Structure	Cope Crisson
Continuing Business	Committee Member Introductions	All
	Engineering Department Overview	Dave Galley
	Computer Networking Curriculum Overview	Cope Crisson and Jeremy Prince
	Industry Trends: Computer Networking	Leo Lorenz, Andrea Bagwell, and Jeff Palmer
	Industry Trends: Convergence Technology	Robert Wright
	High School Alignment	Dave Galley and Wes Cunningham
	Appropriate Certification For Students	All
	Suggested Outreach	All
New Business:	Donated Equipment From Cisco	Leo Lorenz
	Business Focus For Convergence Coursework	Bob Wright
	Engineering Speaker Series/Symposium	Dave Galley
	Guest Speakers In Summer Semester Classrooms	Dave Galley
Curriculum Decisions:	Server 2008 Course Strategy	Julie Hietschold and Jeremy Prince
	VM Ware Course Strategy	All
	Computer Networking Case Study Class: Update	Cope Crisson
Other:	N/A	

MINUTES

Key Discussion Points	Discussion
Old Business:	Pending Changes In The Cisco Academic Academy Structure: As planned, Cope updated the committee on pending Cisco Academy changes. The group was updated on the decision that we at Collin College would be an Academy, a Support Center and an Instructor Training Center. Cope detailed the reasons for our participation as an Instructor Training Center. As had been the case in the last meeting, the committee expressed support for this decision as the right approach for our future.
Continuing Business:	Engineering Department Overview: An overview of the Department was given by Dave Galley
	Computer Networking Curriculum Overview A curriculum overview was given by Cope Crisson, Jeremy Prince, and Dave Galley.
	Industry Trends: Computer Networking Leo, Andrea and Jeff reported that the local DFW economy continues to strongly support Computer Networking curriculum. Leo reported that he felt that our curriculum was very well rounded. He requested that we look into offering CCNP Voice. Cope/Pete took the action item to do that prior to the next meeting.
	Industry Trends: Convergence Technology Robert reported that the local DFW economy continues to strongly support Convergence Technology curriculum. Julie shared with the group that EMC was releasing another Storage Course. She indicated that she would check on it and report back to the committee at the next meeting after the course's release date.
	High School Alignment Technical Dual Credit needs to be focused on in the coming semesters. Wes continued to express support for us moving forward with the Technical Dual Credit approach. Cisco CCNA 1 and 2 are being articulated at the High School Level as Tech. Prep. at this point and CCNA 3 and CCNA 4 being Technical Dual Credit. As FISD CATE Principal, Wes reported that there were 18 students in the CCNA 2 feeder class for the first Fall CCNA 3 Technical Dual Credit class taught by Kip at PRC.
	Appropriate Certification For Students: Everyone agreed that the numerous certifications that we offer in this Computer Networking and Convergence Technology were sufficient for our students.
	Suggested Outreach: The committee was complimentary of the support given by the Collin College Faculty to local businesses. The Summer Robotics Camp for middle school and high school students was discussed. In addition, the Frisco Mindbender summer camp was discussed. Committee members were encouraged to discuss these events with colleagues.

New Business:	Donated Equipment From Cisco: Leo indicated that Cisco would be willing to donate certain specialized equipment to the department as needed. We agreed that we would discuss this further after making a "virtual lab" decision as part of the DOL grant this summer. It was agree that this offer could help our CyberSecurity effort, as well. We will discuss this in our Fall 2012 meeting.
	Business Focus For Convergence Coursework: Bob Wright brought out the need for business courses in our Engineering program. After much varied and heated discussion, while everyone agreed that this was a good suggestion in an ideal world, most members did not want to remove technical coursework from the Convergence degree in order to produce a course slot in the already full Convergence degree program. It was instead decided that individual professors would slip discussions of business into class room discussion. Further, the need for in class speakers from industry and/or a speaker series was seen as a another way to achieve Bob's stated objective.
	Engineering Speaker Series/Symposium: Dave brought to the group's attention that the Engineering Department would be holding an Evening Symposium on CyberSecurity and needed industry help. The support was overwhelming for such an event. Committee members were asked to contribute ideas for speaker topics.
	Guest Speakers In Summer Semester Classrooms: Dave made an appeal to the committee members to consider speaking as industry partners in classrooms during the Summer Semester. It was left to the faculty to get with Advisory Committee Members to set-up these interactions.
Curriculum Decisions:	Server 2008 Course Strategy: The discussion as to whether industry was moving to MS Server 2008 in the near future was continued from the last meeting. The decision to continue to stick with the Server 2003 coursework for the Spring and try to implement Server 2008 coursework in the Fall 2012/Spring 2013 timeframe was reaffirmed as the correct strategy. The subgroup comprised of faculty members (Jeremy, Rhonda, and Dave) and Advisory members (Andrea, Julie, and Jeff) agreed to continue to give inputs for the transition from Server 2003 to Server 2008. Jeremy Prince agreed to work on how the labs would be handled. At present for Server 2003, the labs are done on Collin College machines. Jeremy was tasked to look at doing the labs over the internet at the MOAC site.
	VM Ware Course: It was announced that the VM Ware course was postponed for the 2012-2013 Academic Year due to equipment costs and a pilot program to run the course as a Continuing Education Course.

	Computer Networking Case Study Class Opportunity: Cope reported that he was teaching the course this semester. He further reported on the status of the course so far. Student feedback has been excellent to date. Cope received very positive feedback from the group, Cope asked for industry support. Specifically, he requested that industry members come to the last class presentations and participate by listening and, then posing challenging questions to the students. Cope was tasked with sending email to committee members inviting them to the class presentation (on May 3rd). Andrea agreed to go to Cope's class prior to the end of the class presentations and talk to students about how they were coming with their projects.
Other:	N/A

CHAIRPERSON SIGNATURE: Leo Lorenz	Andrea Bagwell	DATE: 9/15/2012	NEXT MEETING:TBD

Dave Galley - Signed meeting notes

From: "Leo Lorenz (lelorenz)" <lelorenz@cisco.com>
To: Dave Galley <DGalley@collin.edu>, Melody Snow <MSnow@collin.edu>
Date: 10/26/2012 10:42 AM
Subject: Signed meeting notes

Hey Dave,

Here are my signed meeting notes in jpg format.

I am also attaching a few links that you or your staff can look at to see what my group does.

These are the links to the current offerings:

http://www.tinyurl.com/srecollab
http://www.tinyurl.com/sredcv
http://www.tinyurl.com/srebn

Here is the link to our youtube channel with our lab walk thru's:
http://www.youtube.com/user/ciscofieldtrainers

And lastly, you might have access to dCloud, which is what partners and internal Cisco can use to do demos. Notice it is cloud based.
www.cisco.com/go/demo

Please feel free to pass this around to your Networking Academy Instructors. Students would only be able to view the YouTube Channel unless they work for a Cisco Partner.

	Computer Networking Case Study Class Opportunity: Cope reported that he was teaching the course this semester. He further reported on the status of the course so far. Student feedback has been excellent to date. Cope received very positive feedback from the group, Cope asked for industry support. Specifically, he requested that industry members come to the last class presentations and participate by listening and, then posing challenging questions to the students. Cope was tasked with sending email to committee members inviting them to the class presentation (on May 3rd). Andrea agreed to go to Cope's class prior to the end of the class presentations and talk to students about how they were coming with their projects.
Other:	N/A

CHAIRPERSON SIGNATURE: Leo Lorenz	Andrea Bagwell	DATE: 9/15/2012	NEXT MEETING:TBD

Leo Lorenz
Virtualization/SMB/Collaboration Systems Engineering Manager
US Partner Organization Tech Ops

lelorenz@cisco.com
Phone: 408-894-1360

Video: lelorenz.ex90.new@cisco.com

CCSI, CCNA, CCNP, MCSE, CNE, CCIE (Voice) - 14131

PRH: Partner Help Desk
Phone: 1-800-Go-CISCO

Cisco Systems, Inc.
2200 E. President George Bush Tpk.
Richardson, TX 75082

Partner Central
Partner Communities

file://C:\temp\XPgrpwise\508A6902PRC_DOMPRC_PO10016235621242B01\GW_000... 10/30/2012

Appendix B - Program Course Syllabi

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: CPMT 1405

Course Title: IT Essentials I: PC Hardware and Software

Course Description: Provides comprehensive overview of computer hardware and software and an introduction to advanced concepts.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Student Learning Outcomes: Describe the internal components of a computer; assemble a computer system; install an operating system; and troubleshoot using system tools and diagnostic software

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 1301

Course Title: CCNA 1 Cisco Exploration 1 - Network Fundamentals

Course Description: A course introducing the architecture, structure, functions, components, and models of the internet. Describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Student Learning Outcomes: Identify and describe internet architecture, structure, functions, components, and models; describe the use of OSI and TCP layered models; identify and describe the nature and roles of protocols and services at the application, network, data link, and physical layers; describe principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations; and build simple LAN topologies by applying basic principles of cabling, device configuration, and IP subnetting.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 1304

Course Title: CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts

Course Description: This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Prerequisite: ITCC 1301

Student Learning Outcomes: Describe the purpose, nature, and operations of a router; describe the purpose and nature of routing tables; describe the purpose and procedure of configuring static routes; design and implement a classless IP addressing scheme for a given network; describe the basis features and concepts of link-state routing protocols; and configure and verify basic RIPv1, RIPv2, single area OSPF, and EIGRP operations in a small routed network.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2308

Course Title: CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless

Course Description: This course helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Detailed explanations of LAN switch operations, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Prerequisite: ITCC 1304

Student Learning Outcomes: Identify and correct common network problems at layers 1, 2, 3, and 7 using a layered model approach; select the appropriate media, cables, ports, and connectors to connect switches to other devices and hosts; perform and verify initial switch configuration tasks including remote access management; configure, verify, and troubleshoot VLANs, VLAN Trunking, Inter-VLAN routing, VTP, and RSTP; verify network status and switch operation using basic utilities (ping, traceroute, telnet, SSH, arp, ipconfig); identify and describe the purpose of the components in a small wireless network (SSID, BSS, ESS); and identify the basic parameters to configure on a wireless network to ensure that devices connect to the correct point

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2310

Course Title: CCNA 4 Cisco Exploration 4 - Accessing the WAN

Course Description: : This course explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Describes user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Discuss the special network services required by converged applications and an introduction to quality of service (QoS).

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Prerequisite: ITCC 2308

Student Learning Outcomes: Describe the impact of applications (Voice Over IP and Video Over IP) on a network; implement basic switch security (port security, trunk access, management vlan other than vlan1, etc.); configure, verify, and troubleshoot DHCP and DNS operation on a router (CLI/SDM); describe today's increasing network security threats and explain the need to implement a comprehensive security policy to mitigate the threats; configure and apply ACLs based on network filtering requirements (CLI/SDM); configure and apply an ACLs to limit telnet and SSH access to the router using (SDM/CLI); configure NAT for given network requirements using (CLI/SDM); configure and verify a basic WAN serial connection; configure and verify Frame Relay on Cisco routers; and describe VPN technology (importance, benefits, role, impact, components).

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2454

Course Title: CCNP Routing-Implementing IP Routing

Course Description: How to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers. Lab required.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITCC 2310 or CCNA Certification and consent of the Program Director

Student Learning Outcomes: Upon successful completion of this course, students will be able to do the following:

1. Explain complex network requirements and design models for implementing advanced routing services in an enterprise network.
2. Implement EIGRP and OSPF in an enterprise network.
3. Exchange routing information between interior gateway protocols.
4. Implement various mechanisms for controlling routing updates and traffic.
5. Implement BGP to allow an enterprise network to connect to an ISP.
6. Describe a basic implementation for branch office and mobile worker connectivity.
7. Implement IPv6 in an enterprise network.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2455

Course Title: CCNP Switch-Implementing IP Switching

Course Description: How to implement, monitor, and maintain switching in converged enterprise campus networks. How to plan, configure, and verity the implementation of complex enterprise switching solutions. How to secure integration of VLANs, WLANs, voice and video into campus networks. Lab required.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITCC 2310 or CCNA Certification and consent of the Program Director

Student Learning Outcomes: Upon successful completion of this course, students will be able to do the following:

1. Implement, monitor, and maintain switching in an enterprise campus network.
2. Implement appropriate spanning tree protocols in campus networks.
3. Implement VLANs in campus networks.
4. Configure and optimize high availability and redundancy on switches.
5. Describe and implement LAN security features.
6. Plan and prepare for advanced services in a campus infrastructure.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2456

Course Title: CCNP TSHOOT-Maintaining and Troubleshooting IP Networks

Course Description: How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches. Lab required.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisites: ITCC 2454 and ITCC 2455 or consent of the Program Director

Student Learning Outcomes: Upon successful completion of this course, students will be able to do the following:

1. Monitor, maintain, and troubleshoot a complex network.
2. Plan and document the most common maintenance functions in complex enterprise networks.
3. Develop a troubleshooting process to identify and solve problems in complex enterprise network.
4. Select tools that best support specific troubleshooting and maintenance process in large, complex enterprise networks.
5. Practice maintenance procedures and fault resolution in switched and routed environments.
6. Troubleshoot IPv4 addressing services, IPv6 routing issues, network infrastructure services, network performance issues on routers and switches, network integration issues affecting wireless connectivity, VoIP, and video.
7. Practice maintenance procedures and fault resolution in a secure infrastructure.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITCC 2470

Course Title: Cisco CCNA Security

Course Description: The Cisco CCNA Security curriculum is taken in preparation for the Implementing Cisco IOS Network Security (IINS) Certification Exam (640-453) leading to the Cisco CCNA Security Certification. The course develops knowledge and skills in the network security area using the available Cisco tools and configurations. Through in-class lecture and lab sections, the following expertise is developed in the following areas: Protocol Sniffers/Analyzers, TCP/IP and common desktop utilities, Cisco IOS software, Cisco VPN clients, and Packet Tracer (PT).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisites: ITCC 2310 or CCNA Certification and consent from the Program Director.

Student Learning Outcomes: Upon course completion the students will be able to perform the following tasks: Describe the security threats facing modern network infrastructures, secure Cisco routers, implement AAA on Cisco routers using local router databases and external servers. Mitigate threats to Cisco routers and networks using ACL's, implement secure network management and reporting, mitigate common Layer 2 attacks, implement the Cisco IOS Firewall feature set, implement the Cisco IOS IPS feature set, and implement site-to-site IPSec VPN's.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 1300

Course Title: Implementing and Supporting Microsoft Windows XP Professional (70-270)

Course Description: Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows XP Professional in a variety of stand-alone and network operating system environments. In-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows XP Professional.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 2

Prerequisite: ITNW 1358 or consent of the Program Director

Student Learning Outcomes: Upon successful completion of this course, students should be able to do the following:

1. Install and upgrade to Windows XP Professional
2. Configure and manage hardware on a computer running Windows XP Professional
3. Configure and manage file systems
4. Configure the desktop environment
5. Use profiles to control desktop customization
6. Configure Windows XP Professional to operate on Windows networks
7. Configure Windows XP Professional for mobile computing.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 1370

Course Title: Configuring and Supporting Microsoft Windows 7 (70-680)

Course Description: Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows 7 in a variety of stand-alone and network operating system environments. In-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows 7.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 2

Prerequisite: ITNW 1358 or consent of the Program Director

Student Learning Outcomes: Upon successful completion of this course, students will be able to do the following:

1. Install Windows 7 cleanly including upgrading to Windows 7 from previous versions of Windows, and migrating user profiles to Windows 7.
2. Deploy Windows 7 including capturing a system image, preparing a system image for deployment, deploying a system image, and configuring a VHD.
3. Configure hardware and applications including configuring devices, configuring application compatibility, configuring application restrictions, and configuring Internet Explorer.
4. Configure network connectivity including configuring IPv4 network settings, configuring IPv6 network settings, configuring networking settings, and configuring Windows Firewall including configuring remote management.
5. Configure Access to Resources including configuring shared resources, configuring file and folder access, configuring user account control (UAC), configuring authentication and authorization, and configuring BranchCache.
6. Configure Mobile Computing including configuring BitLocker and BitLocker To Go, configuring DirectAccess, configuring mobility options, and configuring remote connections.
7. Monitor and maintain systems that run Windows 7 including configuring updates to Windows 7, managing disks, monitoring systems, and configuring performance settings.
8. Configure Backup and Recovery Options including configuring backup, configuring system recovery options, and configuring file recovery options.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*
Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 1440

Course Title: Managing and Maintaining a Microsoft Windows Server 2003 Environment (70-290)

Course Description: Managing accounts and resources, maintaining server resources, monitoring server performance, and safeguarding data in a Microsoft Windows Server 2003 environment.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 1300 or consent of the Program Director.

Student Learning Outcomes: Upon successful completion of this course, students should be able to do the following:

1. Create and populate organizational units with user and computer accounts
2. Create and manage groups
3. Implement printing
4. Manage the user and computer environment by using Group Policy
5. Administer server resources
6. Monitor system performance
7. Manage hard disks
8. Manage disaster recovery

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 1450

Course Title: Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services

Course Description: Implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access (MS 70-291)

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 1440

Student Learning Outcomes: Configure routing by using the Routing and Remote Access service; manage and monitor DHCP; resolve host names by using DNS; resolve network basic input/output system (NetBIOS) names by using WINS; and configure network access.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 1455

Course Title: Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Course Description: Planning and maintaining a Windows Server 2003 network Infrastructure (MS 70-293).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 1450

Student Learning Outcomes: Plan a TCP/IP physical and logical network; plan a Dynamic Host Configuration Protocol (DHCP) strategy; plan a Domain Name System (DNS) strategy; plan and optimize Windows Internet Naming Service (WINS); and troubleshoot network access.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2400

Course Title: Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Course Description: Windows Server 2003 directory service environment. Includes forest and domain structure; Domain Name System (DNS); site topology and replication; organizational unit structure and delegation of administration; Group Policy; and user, group, and computer account strategies.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 1455

Student Learning Outcomes: Describe the logical and physical components of Active Directory; plan and implement an organizational unit structure; plan and implement a Group Policy strategy to centrally manage users and computers in an enterprise; and implement sites to manage and monitor Active Directory replication. Plan and manage operations masters; and plan and implement an Active Directory infrastructure that is based on a directory service design provided by an enterprise architect.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2401

Course Title: Windows Server 2008 Network Infrastructure Configuration

Course Description: A course in Windows Server 2008 networking infrastructure to include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security. (MS 70-642).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 2402

Student Learning Outcomes: Identify hardware requirements; perform installation or upgrade to Windows Server 2008; configure IPv4 and IPv6 addressing; deploy and maintain Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS) servers; and setup and configure network services.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2402

Course Title: Windows Server 2008 Active Directory Configuration

Course Description: A study of Active Directory Service on Windows Server 2008. Concepts of resource management within an enterprise network environment. (MS 70-640).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITNW 1358

Student Learning Outcomes: Configure Domain Name System (DNS) for Active Directory, Active Directory infrastructure, additional Active Directory server roles and Active Directory Certificate Services; and develop and maintain Active Drive objects and the Active Drive environment.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2422

Course Title: Windows Server 2008 Applications Infrastructure Configuration

Course Description: A course in the installation, configuring, maintaining, and troubleshooting of an Internet Information Services (IIS) 7.0 web server and Terminal Services in Windows Server 2008 (MS 70-643).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 2401

Student Learning Outcomes: Configure access to Terminal Services applications; configure advanced Terminal Services features, application pools on Microsoft Internet Information Services (IIS) 7.0, and network application services; publish and secure web sites; install, configure and administer IIS 7.0 and web site availability enhancements; and deploy virtual technology.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2440

Course Title: Designing Security for Microsoft Networks

Course Description: Assembling the design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. Includes decision-making skills through an interactive tool that simulates real-life scenarios. Focuses on collecting information and sorting through details to resolve a given security requirement (MS 70-298).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 2400

Student Learning Outcomes: Plan a framework for network security; analyze security risks; design security for physical resources, computers, accounts, authentication, data, data transmission, and network perimeters; and design an incident response procedure.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2450

Course Title: Implementing and Managing Microsoft Exchange

Course Description: Updating and supporting a reliable, secure messaging infrastructure used for creating, storing, and sharing information by using Microsoft Exchange Server 2003. Includes a significant amount of hands-on practices, discussions, and assessments to assist students in becoming proficient in the skills necessary to update and support Exchange Server 2003 (MS 70-284).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 1440

Student Learning Outcomes: Perform a clean installation of Exchange Server 2003 and verify its success; configure and manage Exchange Server 2003; secure Exchange Server 2003; and manage public folders, address lists, client configuration and connectivity, routing, mobile devices, data storage, and hardware resources. Implement and manage client access with Internet protocols; plan for disaster and disaster recovery; perform back-up and restore procedures; perform preventive maintenance; and migrate users from Exchange Server 5.5 to a separate Exchange Server 2003 organization.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2451

Course Title: Windows Server 2008: Server Administrator

Course Description: Knowledge and skills for the entry-level server administrator or information technology (IT) professional to implement, monitor and maintain Windows Server 2008 servers. (MS 70-646).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 2401

Student Learning Outcomes: Plan server deployment, server management, application and data provisioning, business continuity and high availability; and monitor and maintain servers.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITMT 2456

Course Title: Windows Server 2008: Enterprise Administrator

Course Description: A capstone course in the design of Windows Server 2008 Enterprise Network Infrastructure that meets business and technical IT requirements for network services. (MS 70-647).

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisite: ITMT 2451

Student Learning Outcomes: Plan network and application services; design core identity and access management components; design support identity and access management components; and design for business continuity and data availability.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITNW 1358

Course Title: Network +

Course Description: Assists individuals in preparing for the Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Student Learning Outcomes: Upon successful completion of this course, students should be able to do the following:

1. Identify and define terminology, hardware, and software components of computer networks
2. Utilize equipment, protocols, and topologies to differentiate between various network systems
3. Demonstrate skills in installing network hardware, software, and cable
4. Troubleshoot network connectivity
5. Configure network protocol
6. Install and configure network client software

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITNW 1380

Course Title: Cooperative Education – Computer Systems Networking and Telecommunications

Course Description: Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office.

Course Credit Hours: 3
Lecture Hours: 1
Cooperative Work Experience Hours: 20

Student Learning Outcomes: As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITNW 2473

Course Title: Information Storage Management (EMC)

Course Description: The Information Storage Management course teaches the skills required in designing Storage Systems using Storage Networking Technologies and Virtualization concepts, Business Continuity approaches, and Storage Security and Management strategies.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisites: ITMT 1300 and ITNW 1358

Student Learning Outcomes: Upon successful completion of this course, students should be able to do the following:

1. Describe information storage and management, storage system environments, data protection: RAID, and intelligent storage systems.
2. Explain the concepts of Direct-Attached storage and SCSI, storage area networks, network attached storage, IP SAN, content addressed storage, and storage Virtualization.
3. Explain Business Continuity, backup and recovery, local replication, and remote replication.
4. Demonstrate the concepts of securing the storage infrastructure and managing the storage infrastructure.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITNW 2474

Course Title: Advanced Computer Networking Case Study

Course Description: A study of how to design networks in a hierarchical, modular fashion, design WAN networks, develop IP addressing, and select protocols for various designs. Also, students will learn how to assess security and the implications of voice and wireless traffic. A case study puts students in the role of a network administrator proposing solutions to design problems. Study advanced network deployment and methods used to configure network devices for effective LAN and WAN traffic management. Topics include designing internetworks, managing traffic, configuring various routing and switching protocols, and techniques used for network security.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3

Prerequisites: ITCC 2310 or CCNA Certification and consent of the Program Director

Student Learning Outcomes: Students will analyze a network design requirement, develop a network design solution, and implement the solution. The students will demonstrate their knowledge of routing, switching, and security. Problems will be introduced into the network to develop troubleshooting skills.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITSC 1316

Course Title: Linux Installation and Configuration

Course Description: Introduction to Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 2

Prerequisite: ITNW 1358 or consent of the Program Director.

Student Learning Outcomes: Upon successful completion of this course, students should be able to do the following:

1. Install, administer, and manage a Linux system
2. Demonstrate proficiency with Linux utilities, commands, and applications
3. Identify and resolve security-based issues
4. Integrate a Linux system into an existing network.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: ITSY 2300

Course Title: Operating System Security

Course Description: Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 2

Prerequisite: Any ITCC, ITMC, ITMT, or ITNW course or consent of the Program Director.

Student Learning Outcomes: Upon successful completion of this course, students should be able to do the following:

1. Identify network security risks, security design, and monitoring solutions
2. Identify sources of computer threats, evaluate potential practices, tools, and technologies to protect individual network systems
3. Establish and sustain an operating system security plan utilizing systems and application security tools
4. Implement procedures to secure and monitor audit logs and set system administrator alerts
5. Develop an organizational operating system security plan that provides for periodic reviews of security policies, procedures, authorized users list, and software update patches.

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook.*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

Appendix C - Degree and Certificate Plans

COLLIN COLLEGE

COMPUTER NETWORKING TECHNOLOGY

2012 - 2013 Computer Networking Technology Program Information

Program Options:

AAS - Computer Networking Technology
Certificate - Computer Networking Technology Software (MCSA)
Certificate - Computer Networking Technology Advanced Software (MCSE)

The Computer Networking Technology program prepares graduates who will be able to design and install secure network systems based on customer requirements, monitor and maintain network traffic and security, and maintain network hardware and software. Courses and hands-on labs in this program will assist the graduate in preparing to take a variety of Cisco, Microsoft, and CompTIA certification examinations.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program.

AAS - Computer Networking Technology

69 credit hours

FIRST YEAR

First Semester

ENGL	1301	Composition I
ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITNW	1358	Network+
MATH	1314	College Algebra [1]
PHED/DANC		Any activity course (Core Options)

Second Semester

CPMT	1405	IT Essentials I: PC Hardware and Software
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITSC	1316	Linux Installation and Configuration

Summer

ECON	1301	Introduction to Economics (Core Options)
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts

SECOND YEAR

First Semester

ITMT	1455	Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure
ITMT	2400	Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure
SPCH	1311	Fundamentals of Speech Communication (Core Options)
Elective*		

Second Semester

HUMA	1301	Introduction to the Humanities (Core Options)
ITMT	2440	Designing Security for Microsoft Networks
ITSY	2300	Operating System Security (Capstone)
Elective*		
Elective*		

1. *May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH -2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417, or MATH-2419*

* *Electives (11 credit hours): Any ITCC, ITMT, ITNW, or ITSY course not listed above with approval of Program Director*

Note: Many ITCC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.

Program Director:
Dave Galley
PRC - H213
972.377.1676

Academic Advisor:
Catherine Smith
PRC – F134
972.377.1780

Gainful Employment Disclosure
Advanced Cisco Systems Networking (CCNP)
Computer Networking Technology Software (MCSA)
Computer Networking Technology Advanced Software (MCSE)

Certificate - Computer Networking Technology Software (MCSA)

18 credit hours

FIRST YEAR

First Semester

ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITNW	1358	Network+

Second Semester

ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services (Capstone)

Elective*

* Elective (4 credit hours): ITMT-2440 or ITMT-2450

Note: Many ITCC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.

Certificate - Computer Networking Technology Advanced Software (MCSE)

29 credit hours

First Semester

ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITNW	1358	Network+

Second Semester

ITMT	1455	Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure
ITMT	2400	Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure (Capstone)
ITMT	2440	Designing Security for Microsoft Networks

Elective*

* Elective (3 credit hours): Any ITCC, ITMT, ITNW or ITSY course not listed above with approval of Program Director

Note: All ITCC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.

Last modified by kmurph@collin.edu on 01/03/2013 15:12:33

COLLIN COLLEGE

CISCO SYSTEMS COMPUTER NETWORKING TECHNOLOGY

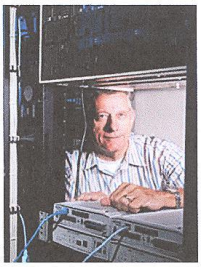
2012-2013 Cisco Systems Computer Networking Technology Program Information

Program Options:

AAS - Cisco Systems Computer Networking Technology
Certificate - Advanced Cisco Systems Computer Networking Technology (CCNP)
MSAA - Cisco Systems Computer Networking Technology (CCNA)

The **Cisco Systems** Computer Networking Technology program prepares graduates who will be able to design and install secure network systems based on customer requirements, monitor and maintain network traffic and security, and maintain network hardware and software on **Cisco Networks professionally**. Courses and hands-on labs in this program will assist the graduate in preparing to take a variety of Cisco, Microsoft, and CompTIA certification examinations. **This program specifically prepares students to take the Cisco Certified Network Associate (CCNA) certification exam and the Cisco Certified Network Professional (CCNP) certification exam.**

Students planning to transfer to a college or university should check with Collin academic advisor prior to beginning this program.



Program Director:
Dave Galley
PRC - H213
972.377.1676

Academic Advisor:
Catherine Smith
PRC - F134
972.377.1780

AAS - Cisco Systems Computer Networking Technology

69 credit hours

FIRST YEAR		
First Semester		
ENGL	1301	Composition I
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts
ITNW	1358	Network +
MATH	1314	College Algebra [1]
Second Semester		
CPMT	1405	IT Essentials I: PC Hardware and Software
ITCC	2308	CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless
ITCC	2310	CCNA 4 Cisco Exploration r - Accessing the WAN
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
Summer		
ECON	1301	Introduction to Economics (Core Options)
HUMA	1301	Introduction to the Humanities (Core Options)

SECOND YEAR		
First Semester		
ITCC	2454	CCNP Routing - Implementing IP Routing
ITCC	2455	CCNP Switch - Implementing IP Switching
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITSY	2300	Operating System Security
SPCH	1311	Fundamentals of Speech Communication (Core Options)
Second Semester		
ITCC	2470	Cisco CCNA Security
ITCC	2456	CCNP TSHOOT - Maintaining and Troubleshooting IP Networks
ITNW	2474	Advanced Computer Networking Case Study (Capstone)
PHED / DANC		Any activity course (Core Options)
Elective *		

1.

May substitute MATH-1316, MATH-1324, MATH-1325, MATH-1332, MATH-1342, MATH-1350, MATH-1351, MATH-1414, MATH-2305, MATH-2312, MATH-2318, MATH-2320, MATH-2413, MATH-2414, MATH-2415, MATH-2417 or MATH-2419

* *Electives (3-5 credit hours): CPMT-2302, EECT-1371, ITNW-2473 (Recommended), ITSY-2301, ITSY-2341, ITSY-2342, ITSY-2343 or ITSY-2572*

Note: Many ITCC, ITNW and ITSY courses are offered in eight-week sessions.

Certificate - Advanced Cisco Systems Computer Networking Technology (CCNP)

28 credit hours

FIRST YEAR		
First Semester		
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts
Second Semester		
ITCC	2308	CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless
ITCC	2310	CCNA 4 Cisco Exploration 4 - Accessing the WAN

SECOND YEAR		
First Semester		
ITCC	2454	CCNP Routing - Implementing IP Routing
ITCC	2455	CCNP Switch - Implementing IP Switching
Second Semester		
ITCC	2456	CCNP TSHOOT - Maintaining and Troubleshooting IP Networks (Capstone)
Elective *		

* *Elective (4 credit hours): ITCC-2470, ITNW-2473 or ITNW-2474*

Note: Many ITCC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.

MSAA - Cisco Systems Computer Networking Technology (CCNA)

12 credit hours

ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts
ITCC	2308	CCNA 3 Cisco Exploration 3 - LAN Switching and Wireless
ITCC	2310	CCNA 4 Cisco Exploration 4 - Accessing the WAN

Note 1: Many ITCC, ITMT, ITNW and ITSY courses are offered in eight-week express sessions.

Note 2: Some of the courses in this award program may require prerequisites. Please check the course descriptions.

***Note:** The second digit in a course number indicates the number of credit hours for that course.*

Last modified by kmurph@collin.edu on 01/03/2013 15:13:08

Appendix D – Student Program Cost Analyses

2012
Windows XP
Server 2003

Collin County Community College District
Eligible Training Provider System
Estimated Costs

COMPUTER NETWORKING TECHNOLOGY - AAS

In County Resident

All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight week express sessions

FIRST YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ENGL 1301	Composition/Rhetoric I	3	$111.00	$0.00	$190.00	$301.00
ITMT 1300	Implementing and Supporting Microsoft XP Professional	3	$111.00	$15.00	$170.00	$296.00
ITMT 1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment	4	$148.00	$0.00	$225.00	$373.00
ITNW 1358	Network +	3	$111.00	$15.00	$125.00	$251.00
MATH 1314[1]	College Algebra	3	$111.00	$120.00	$195.00	$426.00
PHED/DANC	Any activity course	1	$37.00	$10.00	$180.00	$227.00
SEMESTER TOTAL		**17**	**$631.00**	**$160.00**	**$1,085.00**	**$1,876.00**

SECOND SEMESTER						
CPMT 1405	IT Essentials I: PC Hardware and Software	4	$148.00	$0.00	$65.00	$213.00
ITCC 1301	CCNA 1: Exploration - Network Fundamentals	3	$111.00	$0.00	$115.00	$226.00
ITMT 1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	4	$148.00	$0.00	$170.00	$318.00
ITSC 1316	Linux Installation and Configuration	3	$111.00	$15.00	$225.00	$351.00
SEMESTER TOTAL		**14**	**$520.00**	**$15.00**	**$575.00**	**$1,110.00**

SUMMER						
ECON 1301	Introduction to Economics	3	$111.00	$0.00	$180.00	$291.00
ITCC 1304	CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts	3	$111.00	$0.00	$115.00	$226.00
SEMESTER TOTAL		**6**	**$224.00**	**$0.00**	**$295.00**	**$519.00**

2012
Windows XP
Server 2003

Collin County Community College District
Eligible Training Provider System
Estimated Costs

COMPUTER NETWORKING TECHNOLOGY - AAS

SECOND YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITMT 1455	Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure	4	$148.00	$20.00	$175.00	$343.00
ITMT 2400	Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure	4	$148.00	$20.00	$150.00	$318.00
SPCH 1311	Fundamentals of Speech Communication	3	$111.00	$0.00	$160.00	$271.00
Elective X3*	Elective of 3 CR	3	$111.00	$0.00	$190.00	$301.00
SEMESTER TOTAL		**14**	**$520.00**	**$40.00**	**$675.00**	**$1,235.00**

SECOND SEMESTER						
HUMA 1301	Introduction to the Humanities	3	$111.00	$0.00	$235.00	$346.00
ITMT 2440	Designing Security for Microsoft Networks	4	$148.00	$20.00	$140.00	$308.00
ITSY 2300	Operating System Security	3	$111.00	$15.00	$205.00	$331.00
Elective X4*	Elective of 4 CR	3	$111.00	$0.00	$190.00	$301.00
Elective X4*	Elective of 4 CR	3	$111.00	$0.00	$190.00	$301.00
SEMESTER TOTAL		**16**	**$594.00**	**$35.00**	**$960.00**	**$1,589.00**

TOTAL HOURS	**TOTAL ESTIMATED COST**	**67**	**$2,489.00**	**$250.00**	**$3,590.00**	**$6,329.00**

Note: Preferred core choices in italics; See other options AAS core of catalog, unless otherwise noted.

* Total number of hours will vary each semester based on course availability

** Based on In County residency @ $37.00 per credit hour. Each Semester Total includes a $2.00 Student record fee. Other tuition rates are available in the Collin catalog and through the Bursar's office.

*** Estimates based on Spring 2013 tuition rates and Fall 2012 textbook costs

1 May substitute MATH1316, MATH1324, MATH1325, MATH1332, MATH1342, MATH1350, MATH1351, MATH1414, MATH2305, MATH2312, MATH2318, MATH2320, MATH2413, MATH2414, MATH2415, MATH2417, or MATH2419

* Electives (11 credit hours): Any ITCC, ITMT, ITNW or ITSY course not listed above with approval of Program Director

2013
Windows 7
Server 2008

Collin County Community College District
Eligible Training Provider System
Estimated Costs

COMPUTER NETWORKING TECHNOLOGY - AAS

In County Resident

All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight week express sessions

FIRST YEAR

FIRST SEMESTER	Class	Hours	Tuition**	Fees	Books	Total***
ENGL 1301	Composition/Rhetoric I	3	$111.00	$0.00	$145.00	$256.00
ITMT 1370	Implementing and Supporting Microsoft 7	3	$111.00	$15.00	$210.00	$336.00
ITMT 2401	Implementing, Managing, and Maintaining a Microsoft Windows Server 2008 Network Infrastructure	4	$148.00	$0.00	$200.00	$348.00
ITNW 1358	Network+	3	$111.00	$15.00	$125.00	$251.00
MATH 1314[1]	College Algebra	3	$111.00	$5.00	$255.00	$371.00
PHED/DANC[2]	Any activity course	1	$37.00	$10.00	$180.00	$227.00
SEMESTER TOTAL		**17**	**$631.00**	**$45.00**	**$1,115.00**	**$1,791.00**

SECOND SEMESTER						
CPMT 1405	IT Essentials I: PC Hardware and Software	4	$148.00	$20.00	$65.00	$233.00
ITCC 1301	CCNA 1: Exploration - Network Fundamentals	3	$111.00	$15.00	$115.00	$241.00
ITMT 2451	Managing and Maintaining a Microsoft Windows Server 2008: Server Administrator	4	$148.00	$0.00	$200.00	$348.00
ITSC 1316	Linux Installation and Configuration	3	$111.00	$15.00	$225.00	$351.00
SEMESTER TOTAL		**14**	**$520.00**	**$50.00**	**$605.00**	**$1,175.00**

SUMMER						
ECON 1301[3]	Introduction to Economics	3	$111.00	$0.00	$180.00	$291.00
ITCC 1304	CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts	3	$111.00	$15.00	$115.00	$241.00
SEMESTER TOTAL		**6**	**$224.00**	**$15.00**	**$295.00**	**$534.00**

2013
Windows 7
Server 2008

Collin County Community College District
Eligible Training Provider System
Estimated Costs

COMPUTER NETWORKING TECHNOLOGY - AAS

SECOND YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITMT 2402	Windows Server 2008 Active Directory Configuration	4	$148.00	$20.00	$210.00	$378.00
ITMT 2422	Windows Server 2008 Applications Infrastructure Configuration	4	$148.00	$20.00	$150.00	$318.00
SPCH 1311[4]	Fundamentals of Speech Communication	3	$111.00	$0.00	$160.00	$271.00
Elective*	Elective of 3 credits	3	$111.00	$15.00	$250.00	$376.00
SEMESTER TOTAL		**14**	**$520.00**	**$55.00**	**$770.00**	**$1,345.00**

SECOND SEMESTER

HUMA 1301[5]	Introduction to the Humanities	3	$111.00	$0.00	$235.00	$346.00
ITMT 2456	Windows Server 2008: Enterprise Administrator	4	$148.00	$20.00	$210.00	$378.00
ITSY 2300	Operating System Security	3	$111.00	$15.00	$205.00	$331.00
Elective*	Elective of 4 credits	4	$148.00	$15.00	$250.00	$413.00
Elective*	Elective of 4 credits	4	$148.00	$15.00	$250.00	$413.00
SEMESTER TOTAL		**18**	**$668.00**	**$65.00**	**$1,150.00**	**$1,883.00**

TOTAL HOURS	**TOTAL ESTIMATED COST**	**69**	**$2,563.00**	**$230.00**	**$3,935.00**	**$6,728.00**

Note: Preferred core choices in italics; See other options AAS core of catalog, unless otherwise noted.

* Total number of hours will vary each semester based on course availability

** Based on In County residency @ $37.00 per credit hour. Each Semester Total includes a $2.00 Student record fee. Other tuition rates are available in the Collin catalog and through the Bursar's office.

*** Estimates based on Spring 2013 tuition rates and textbook costs

1 May substitute MATH 1316, 1324, 1325, 1332, 1342, 1350, 1351, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417, or 2419.

2 May take DANC 1101, 1110, 1111, 1141, 1142, 1145, 1146, 1147, 1148, 1151, 1152, 1222, 1223, 2141, 2142, 2145, 2146, 2147, 2148, 2151, 2152, 2301, 2325; PHED 1100, 1102, 1104, 1106, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1120, 1121, 1123, 1124, 1125, 1126, 1127, 1129, 1130, 1131, 1133, 1136, 1137, 1140, 1147, 1148, 1253, 1338.

3 May substitute ANTH 2346, 2351, ECON 2301, ECON 2302, GOVT 2301, 2301, HIST 1301, 1302, 2301, PSYC 2301, 2302 or SOCI 1301.

4 May substitute SPCH 1315 or 1321.

5 May substitute ARTS 1301, 1303, 1304, 1313; DANC 2303; DRAM 1310, 2361, 2362; ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, 2351; FREN 2303, 2304; HIST 2311, 2312, 2321, 2322; HUMA 1305, 2319, 2323; MUSI 1306, 1307; PHIL 1301, 1304, 2303, 2306, 2307, 2321; SPAN 2321, 2322.

* Electives (11 credit hours): Any ITCC, ITMT, ITNW or ITSY course not listed above with approval of Program.Director

2012
Windows XP
Server 2003

Collin County Community College District
Eligible Training Provider System
Estimated Costs

CISCO SYSTEMS NETWORKING SPECIALIZATION - AAS

In County Resident

All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight week express sessions

FIRST YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ENGL 1301	Composition/Rhetoric I	3	$111.00	$0.00	$190.00	$301.00
ITCC 1301	CCNA 1: Exploration - Network Fundamentals	3	$111.00	$0.00	$115.00	$226.00
ITCC 1304	CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts	3	$111.00	$0.00	$115.00	$226.00
ITNW 1358	Network +	3	$111.00	$15.00	$125.00	$251.00
MATH 1314[1]	College Algebra	3	$111.00	$120.00	$195.00	$426.00
SEMESTER TOTAL		**15**	**$557.00**	**$135.00**	**$740.00**	**$1,432.00**

SECOND SEMESTER						
CPMT 1405	IT Essentials I: PC Hardware and Software	4	$148.00	$0.00	$65.00	$213.00
ITCC 2308	CCNA 3: Cisco Exploration 3 - LAN Switching and Wireless	3	$111.00	$0.00	$115.00	$226.00
ITCC 2310	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$0.00	$115.00	$226.00
ITMT 1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment	4	$148.00	$0.00	$225.00	$373.00
SEMESTER TOTAL		**14**	**$520.00**	**$0.00**	**$520.00**	**$1,040.00**

SUMMER						
ECON 1301	Introduction to Economics	3	$111.00	$0.00	$180.00	$291.00
HUMA 1301	Introduction to the Humanities	3	$111.00	$0.00	$235.00	$346.00
SEMESTER TOTAL		**6**	**$224.00**	**$0.00**	**$415.00**	**$639.00**

2012
Windows XP
Server 2003

Collin County Community College District
Eligible Training Provider System
Estimated Costs

CISCO SYSTEMS NETWORKING SPECIALIZATION - AAS

SECOND YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITCC 2454	CCNP ROUTE: Implementing Cisco IP Routing	3	$111.00	$0.00	$115.00	$226.00
ITCC 2455	CCNP SWITCH: Implementing Cisco IP Switching	3	$111.00	$0.00	$115.00	$226.00
ITMT 1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	4	$148.00	$0.00	$170.00	$318.00
ITSY 2300	Operating System Security	3	$111.00	$15.00	$205.00	$331.00
SPCH 1311	Fundamentals of Speech Communication	3	$111.00	$0.00	$160.00	$271.00
SEMESTER TOTAL		**16**	**$594.00**	**$15.00**	**$765.00**	**$1,374.00**

SECOND SEMESTER

ITCC 2470	Cisco CCNA Security	4	$148.00	$0.00	$55.00	$203.00
ITCC 2456	CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks	3	$111.00	$0.00	$115.00	$226.00
ITNW 2474	Advanced Computer Networking Case Study (Capstone)	4	$148.00	$0.00	$0.00	$148.00
PHED/DANC	Any activity course	1	$37.00	$10.00	$180.00	$227.00
Elective[2]	Elective of 3 credits	3	$111.00	$0.00	$190.00	$301.00
SEMESTER TOTAL		**15**	**$557.00**	**$10.00**	**$540.00**	**$1,107.00**

TOTAL HOURS	**TOTAL ESTIMATED COST**	**66**	**$2,452.00**	**$160.00**	**$2,980.00**	**$5,592.00**

Note: Preferred core choices in italics; See other options AAS core of catalog, unless otherwise noted.

* Total number of hours will vary each semester based on course availability

** Based on In County residency @ $37.00 per credit hour. Each Semester Total includes a $2.00 Student record fee. Other tuition rates are available in the Collin catalog and through the Bursar's office.

*** Estimates based on Spring 2013 tuition rates and Fall 2012 textbook costs

1 May substitute MATH1316, MATH1324, MATH1325, MATH1332, MATH1342, MATH1350, MATH1351, MATH1414, MATH2305, MATH2312, MATH2318, MATH2320, MATH2413, MATH2414, MATH2415, MATH2417 or MATH2419

2 Elective (3-5 credit hours): CPMT2302, EECT1371, ITNW2473 (Recommended), ITSY2301, ITSY2341, ITSY2342, ITSY2343, or ITSY 2572

2013
Windows 7
Sqrvr 2008

Collin County Community College District
Eligible Training Provider System
Estimated Costs

CISCO SYSTEMS NETWORKING SPECIALIZATION - AAS

In County Resident

All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight week express sessions

FIRST YEAR

FIRST SEMESTER	Class	Hours	Tuition**	Fees	Books	Total***
ENGL 1301	Composition/Rhetoric I	3	$111.00	$0.00	$145.00	$256.00
ITCC 1301	CCNA 1: Exploration - Network Fundamentals	3	$111.00	$15.00	$115.00	$241.00
ITCC 1304	CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts	3	$111.00	$15.00	$115.00	$241.00
ITNW 1358	Network+	3	$111.00	$15.00	$125.00	$251.00
MATH 1314[1]	College Algebra	3	$111.00	$5.00	$255.00	$371.00
SEMESTER TOTAL		**15**	**$557.00**	**$50.00**	**$755.00**	**$1,362.00**

SECOND SEMESTER

CPMT 1405	IT Essentials I: PC Hardware and Software	4	$148.00	$20.00	$65.00	$233.00
ITCC 2308	CCNA 3: Cisco Exploration 3 - LAN Switching and Wireless	3	$111.00	$15.00	$115.00	$241.00
ITCC 2310	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$15.00	$115.00	$241.00
ITMT 2401	Implementing, Managing, and Maintaining a Microsoft Windows Server 2008 Network Infrastructure	4	$148.00	$0.00	$200.00	$348.00
SEMESTER TOTAL		**14**	**$520.00**	**$50.00**	**$495.00**	**$1,065.00**

SUMMER

ECON 1301[2]	Introduction to Economics	3	$111.00	$0.00	$180.00	$291.00
HUMA 1301[3]	Introduction to the Humanities	3	$111.00	$0.00	$235.00	$346.00
SEMESTER TOTAL		**6**	**$224.00**	**$0.00**	**$415.00**	**$639.00**

2013
Windows7
Server 2008

Collin County Community College District
Eligible Training Provider System
Estimated Costs

CISCO SYSTEMS NETWORKING SPECIALIZATION - AAS

SECOND YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITCC 2454	CCNP ROUTE: Implementing Cisco IP Routing	4	$148.00	$20.00	$80.00	$248.00
ITCC 2455	CCNP SWITCH: Implementing Cisco IP Switching	4	$148.00	$20.00	$80.00	$248.00
ITMT 2451	Managing and Maintaining a Microsoft Windows Server 2008: Server Administrator	4	$148.00	$0.00	$200.00	$348.00
ITSY 2300	Operating System Security	3	$111.00	$15.00	$205.00	$331.00
SPCH 1311[4]	Fundamentals of Speech Communication	3	$111.00	$0.00	$160.00	$271.00
SEMESTER TOTAL		**18**	**$668.00**	**$55.00**	**$725.00**	**$1,448.00**

SECOND SEMESTER

ITCC 2470	Cisco CCNA Security	4	$148.00	$0.00	$55.00	$203.00
ITCC 2456	CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks	4	$148.00	$20.00	$80.00	$248.00
ITNW 2474	Advanced Computer Networking Case Study (Capstone)	4	$148.00	$0.00	$90.00	$238.00
PHED/DANC[5]	Any activity course	1	$37.00	$10.00	$180.00	$227.00
Elective*	Elective of 3-5 credits	5	$185.00	$15.00	$250.00	$450.00
SEMESTER TOTAL		**18**	**$668.00**	**$45.00**	**$655.00**	**$1,368.00**

TOTAL HOURS	**TOTAL ESTIMATED COST**	**71**	**$2,637.00**	**$200.00**	**$3,045.00**	**$5,882.00**

Note: Preferred core choices in italics; See other options AAS core of catalog, unless otherwise noted.

* Total number of hours will vary each semester based on course availability

** Based on In County residency @ $37.00 per credit hour. Each Semester Total includes a $2.00 Student record fee. Other tuition rates are available in the Collin catalog and through the Bursar's office.

*** Estimates based on Spring 2013 tuition rates and textbook costs

1 May substitute MATH 1316, 1324, 1325, 1332, 1342, 1350, 1351, 1414, 2305, 2312, 2318, 2320, 2413, 2414, 2415, 2417 or 2419.

2 May substitute ANTH 2346, 2351, ECON 2301, 2302, GOVT 2301, 2301, HIST 1301, 1302, 2301, PSYC 2301, 2302 or SOCI 1301.

3 May substitute ARTS 1301, 1303, 1304, 1313; DANC 2303; DRAM 1310, 2361, 2362; ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, 2343, 2351; FREN 2303, 2304; HIST 2311, 2312, 2321, 2322; HUMA 1305, 2319, 2323; MUSI 1306, 1307; PHIL 1301, 1304, 2303, 2306, 2307, 2321; SPAN 2321, 2322.

4 May substitute SPCH 1315 or 1321.

5 May take DANC 1101, 1110, 1111, 1141, 1142, 1145, 1146, 1147, 1148, 1151, 1152, 1222, 1223, 2141, 2142, 2145, 2146, 2147, 2148, 2151, 2152, 2301, 2325; PHED 1100, 1102, 1104, 1106, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1120, 1121, 1123, 1124, 1125, 1126, 1127, 1129, 1130, 1131, 1133, 1136, 1137, 1140, 1147, 1148, 1253, 1338.

* Elective (3-5 credit hours): CPMT 2302, EECT 1371, ITNW 2473 (Recommended), ITSY 2301, 2341, 2342, 2343, or 2572.

2012

Collin County Community College District
Eligible Training Provider System
Estimated Costs

CISCO SYSTEMS NETWORKING (CCNP), ADVANCED - CERTIFICATE

In County Resident

All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight week express sessions

FIRST YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITCC 1301	CCNA 1: Exploration - Network Fundamentals	3	$111.00	$0.00	$115.00	$226.00
ITCC 1304	CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts	3	$111.00	$0.00	$115.00	$226.00
SEMESTER TOTAL		**6**	**$224.00**	**$0.00**	**$230.00**	**$454.00**

SECOND SEMESTER						
ITCC 2308	CCNA 3: Cisco Exploration 3 - LAN Switching and Wireless	3	$111.00	$0.00	$115.00	$226.00
ITCC 2310	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$0.00	$115.00	$226.00
SEMESTER TOTAL		**6**	**$224.00**	**$0.00**	**$230.00**	**$454.00**

SECOND YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITCC 2454	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$0.00	$115.00	$226.00
ITCC 2455	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$0.00	$115.00	$226.00
SEMESTER TOTAL		**6**	**$224.00**	**$0.00**	**$230.00**	**$454.00**

SECOND SEMESTER						
ITCC 2456	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$0.00	$115.00	$226.00
Elective*	ITCC 2470, ITNW 2473 or ITNW 2474	4	$148.00	$0.00	$120.00	$268.00
SEMESTER TOTAL		**7**	**$261.00**	**$0.00**	**$235.00**	**$496.00**

TOTAL HOURS	**TOTAL ESTIMATED COST**	**25**	**$933.00**	**$0.00**	**$925.00**	**$1,858.00**

Note: Preferred core choices in italics; See other options AAS core of catalog, unless otherwise noted.

* Total number of hours will vary each semester based on course availability

** Based on In County residency @ $37.00 per credit hour. Each Semester Total includes a $2.00 Student record fee. Other tuition rates are available in the Collin catalog and through the Bursar's office.

*** Estimates based on Spring 2013 tuition rates and Fall 2012 textbook costs

2013

Collin County Community College District
Eligible Training Provider System
Estimated Costs

CISCO SYSTEMS NETWORKING (CCNP), ADVANCED - CERTIFICATE

In County Resident

All ITCC, ITMC, ITMT, ITNW, and ITSY courses are offered in eight week express sessions

FIRST YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITCC 1301	CCNA 1: Exploration - Network Fundamentals	3	$111.00	$15.00	$115.00	$241.00
ITCC 1304	CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts	3	$111.00	$15.00	$115.00	$241.00
SEMESTER TOTAL		**6**	**$224.00**	**$30.00**	**$230.00**	**$484.00**
SECOND SEMESTER						
ITCC 2308	CCNA 3: Cisco Exploration 3 - LAN Switching and Wireless	3	$111.00	$15.00	$115.00	$241.00
ITCC 2310	CCNA 4: Cisco Exploration 4 - Accessing the WAN	3	$111.00	$15.00	$115.00	$241.00
SEMESTER TOTAL		**6**	**$224.00**	**$30.00**	**$230.00**	**$484.00**

SECOND YEAR

FIRST SEMESTER	Class	Hours*	Tuition**	Fees	Books	Total***
ITCC 2454	CCNP Routing-Implementing IP Routing	4	$148.00	$20.00	$80.00	$248.00
ITCC 2455	CCNP Switch-Implementing IP Switching	4	$148.00	$20.00	$80.00	$248.00
SEMESTER TOTAL		**8**	**$298.00**	**$40.00**	**$160.00**	**$498.00**
SECOND SEMESTER						
ITCC 2456	CCNP TSHOOT-Maintaining and Troubleshooting IP Networks	4	$148.00	$20.00	$80.00	$248.00
Elective*	ITCC 2470, ITNW 2473 or ITNW 2474	4	$148.00	$0.00	$120.00	$268.00
SEMESTER TOTAL		**8**	**$298.00**	**$20.00**	**$200.00**	**$518.00**
TOTAL HOURS	**TOTAL ESTIMATED COST**	**28**	**$1,044.00**	**$120.00**	**$820.00**	**$1,984.00**

Note: Preferred core choices in italics; See other options AAS core of catalog, unless otherwise noted.

* Total number of hours will vary each semester based on course availability

** Based on In County residency @ $37.00 per credit hour. Each Semester Total includes a $2.00 Student record fee. Other tuition rates are available in the Collin catalog and through the Bursar's office.

*** Estimates based on Spring 2013 tuition rates and textbook costs

Appendix E – Computer Networking Pamphlet & Insert

COLLIN COLLEGE

Computer Networking

COURSES OF STUDY

Cisco Academy

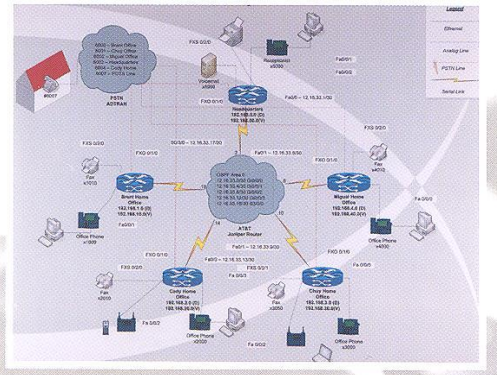
CCNA, CCNA Security, CCNA Voice

CCNP

Microsoft Server Technology

Convergence Technology

Wireless Technology



Networking

The Computer Networking Technology program prepares graduates to design and install secure network systems based on customer requirements.

Networking skills arise from courses such as: Networking Essentials, Digital Home Technology Integration, Convergence Technology, Cisco CCNA prep courses, Security Fundamentals, Linux, Windows Server, Windows Operating System. In addition, courses are offered in wireless technology, cloud computing, storage and virtualization.

Graduates will be able to configure and test network devices, monitor network traffic, maintain security and integrate equipment from multiple vendors.

Hands-on labs in this program are extensive and essential for students preparing for a variety of Cisco, Microsoft, and CompTIA certification examinations.

A number of Collin College certificates recognized by our business partners can also be earned along the way towards earning an AAS degree.

Students planning to transfer to a college or university must consult with a Collin College academic advisor prior to beginning a networking program to properly align courses between institutions.

Business Partners

Keeping our programs up to date would not be possible if it were not for Collin College's close relationship with its business partners, who represent more than 40 local technology companies. We pay close attention to their expertise since they provide valuable guidance concerning student skill sets needed to continually meet critical business needs.

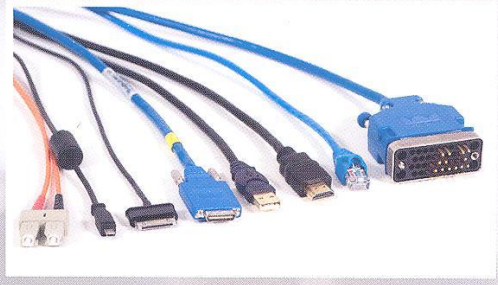
Cisco

The Cisco Systems Computer Networking Technology program prepares graduates to design and install secure networking systems, monitor traffic, maintain hardware and software that supports Cisco Network devices.

Our Case Study class is a bridge course between CCNA and CCNP that provides for business planning and interoperability design among various WAN/LAN vendor devices.

Course content and extensive hands-on labs in this program provide preparation for CCNA and CCNP certification examinations.

"Technical Dual Credit" – The CCNA program is offered in a number of Collin County high schools, where students earn college credit and high school credit for each course successfully completed.



Convergence Technology

Why enroll in the Convergence program?

This program introduces students to the "triple play," integrating data, voice and video over the Internet. This technology makes it possible for students: To understand how the Internet works, while enjoying the astounding versatility built into smart phones, tablets and computers; Receive hands-on experience with routers, switches, voice over IP devices, analog and digital phones; Learn the processes of voice over WiFi (VoWiFi), which includes various wireless devices, antenna technology and related protocols (rules).

Students will experience many hands-on labs and projects in our state-of-the art laboratory. Furthermore, students will have the opportunity to meet industry guest speakers and learn about their companies, career possibilities, job opportunities and how the important skills acquired at Collin College relate to their businesses.

Our lab provides a one-of-a-kind opportunity to get hands-on experience with equipment and devices representing a number of different vendors and practice interoperability – the connecting of various vendor's equipment, which is essential in the technology business today.

Other program highlights

- Green technology (conserving electrical power)
- CompTIA Convergence+ certification

ABOUT COLLIN COLLEGE

Since offering its first classes at area high schools in 1985, Collin College has expanded to serve about 53,000 credit and continuing education students each year. The only public college in the county, the college offers more than 100 degrees and certificates in a wide range of disciplines.

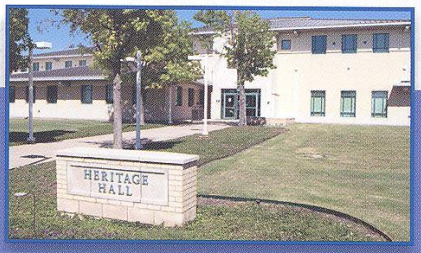
Our Mission:
Collin College is a student and community-centered institution committed to developing skills, strengthening character and challenging the intellect.

Our Core Values:

We have a passion for:

- **Learning**
- **Service and Involvement**
- **Creativity and Innovation**
- **Academic Excellence**
- **Dignity and Respect**
- **Integrity**

Our students:
Our Engineering students come from all walks of life. Their needs are met by the unique focus of our student-centered Engineering faculty. Through in-class lectures, hands-on labs, key articulation agreements and co-op opportunities with local high-tech businesses, each student finds what they seek at Collin College. We would like you to consider joining us!



Preston Ridge Campus (PRC)
9700 Wade Blvd.
Frisco, Texas 75035
972.377.1790

Spring Creek Campus (SCC)
2800 E. Spring Creek Parkway
Plano, Texas 75074
972.881.5790

For more information contact:

Engineering and Technology Department:
972.377.1501 or 972.377.1676

Technical Academic Advising:
972.377.1780

COLLIN™
COLLEGE
www.collin.edu

CCCCD does not discriminate on the basis of race, color, religion, age, sex, national origin, disability or veteran status.

12PB-249

"Funded with a grant from the Texas Higher Education Coordinating Board with funds provided by the Carl D. Perkins Vocational and Applied Technology Education Act of 2006."

COLLIN COLLEGE

AAS - Computer Networking Technology

69 credit hours

FIRST YEAR

First Semester

ENGL	1301	Composition I
ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITNW	1358	Network+
MATH	1314	College Algebra 1
PHED/DANC		Any activity course *(Core Options)*

Second Semester

CPMT	1405	IT Essentials I: PC Hardware and Software
ITCC	1301	CCNA 1 Cisco Exploration 1 - Network Fundamentals
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITSC	1316	Linux Installation and Configuration

Summer

ECON	1301	Introduction to Economics *(Core Options)*
ITCC	1304	CCNA 2 Cisco Exploration 2 - Routing Protocols and Concepts

SECOND YEAR

First Semester

ITMT	1455	Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure
ITMT	2400	Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure
SPCH	1311	Fundamentals of Speech Communication *(Core Options)*
*Elective**		

Second Semester

HUMA	1301	Introduction to the Humanities (Core Options)
ITMT	2440	Designing Security for Microsoft Networks
ITSY	2300	Operating System Security (Capstone)
*Elective**		

–continued

Certificate - Computer Networking Technology Software (MCSA)

18 credit hours

FIRST YEAR

First Semester

ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITNW	1358	Network+

Second Semester

ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services

*Elective**

Certificate - Computer Networking Technology Advanced Software (MCSE)

29 credit hours

First Semester

ITMT	1300	Implementing and Supporting Microsoft Windows XP Professional
ITMT	1440	Managing and Maintaining a Microsoft Windows Server 2003 Environment
ITMT	1450	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services
ITNW	1358	Network+

Second Semester

ITMT	1455	Planning, Implementing, and Maintaining a Microsoft Server 2003 Network Infrastructure
ITMT	2400	Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure *(Capstone)*
ITMT	2440	Designing Security for Microsoft Networks

*Elective**

COLLIN COLLEGE

12PB249

Appendix F – Noel Levitz Student Satisfaction Survey Summaries

Noel - Levitz Student Satisfaction Inventory			
2008			
	Collin County Community College District	**National Community Colleges**	
Summary			
So far, how has your college experience	**4.75**	**4.76**	**-0.01**
met your expectations?			
1=Much worse than expected	1%	1%	
2=Quite a bit worse than I expected	1%	1%	
3=Worse than I expected	6%	6%	
4=About what I expected	40%	39%	
5=Better than I expected	24%	24%	
6=Quite a bit better than I expected	13%	11%	
7=Much better than expected	11%	14%	
Rate your overall satisfaction with your	**5.40**	**5.44**	**-0.04**
experience here thus far.			
1=Not satisfied at all	1%	1%	
2=Not very satisfied	2%	2%	
3=Somewhat dissatisfied	5%	5%	
4=Neutral	14%	12%	
5=Somewhat satisfied	18%	17%	
6=Satisfied	42%	41%	
7=Very satisfied	16%	18%	
All in all, if you had to do it over, would you	**5.81**	**5.68**	**0.13**

enroll here again?			
1=Definitely not	1%	2%	
2=Probably not	3%	4%	
3=Maybe not	2%	3%	
4=I don't know	8%	9%	
5=Maybe yes	12%	10%	
6=Probably yes	32%	32%	
7=Definitely yes	39%	37%	

2010	**Collin County Community College District**	**National Community Colleges**	
Summary			
So far, how has your college experience	**4.9**	**4.79**	**0.11**
met your expectations?			
1=Much worse than expected	2%	1%	
2=Quite a bit worse than I expected	2%	1%	
3=Worse than I expected	4%	6%	
4=About what I expected	33%	37%	
5=Better than I expected	25%	25%	
6=Quite a bit better than I expected	15%	12%	
7=Much better than expected	16%	14%	
Rate your overall satisfaction with your experience here thus far.	**5.49**	**5.46**	**0.03**
1=Not satisfied at all	1%	1%	
2=Not very satisfied	2%	2%	

3=Somewhat dissatisfied	4%	5%	
4=Neutral	12%	11%	
5=Somewhat satisfied	16%	17%	
6=Satisfied	40%	41%	
7=Very satisfied	22%	19%	
All in all, if you had to do it over, would you enroll here again?	**5.91**	**5.72**	**0.19**
1=Definitely not	1%	2%	
2=Probably not	3%	4%	
3=Maybe not	2%	3%	
4=I don't know	8%	8%	
5=Maybe yes	10%	10%	
6=Probably yes	30%	32%	
7=Definitely yes	44%	38%	

2012	**Collin County Community College District**	**National Community Colleges**	
Summary			
So far, how has your college experience met your expectations?	**5.03**	**4.81**	**0.22**
1=Much worse than expected	2%	1%	
2=Quite a bit worse than I expected	0%	1%	
3=Worse than I expected	7%	6%	
4=About what I expected	26%	37%	
5=Better than I expected	28%	25%	
6=Quite a bit better than I expected	13%	12%	
7=Much better than expected	20%	15%	

Rate your overall satisfaction with your experience here thus far.	**5.71**	**5.46**	**0.25**
1=Not satisfied at all	1%	1%	
2=Not very satisfied	3%	2%	
3=Somewhat dissatisfied	3%	5%	
4=Neutral	5%	11%	
5=Somewhat satisfied	15%	17%	
6=Satisfied	42%	40%	
7=Very satisfied	28%	20%	
All in all, if you had to do it over, would you enroll here again?	**6.21**	**5.72**	**0.49**
1=Definitely not	1%	2%	
2=Probably not	2%	4%	
3=Maybe not	2%	3%	
4=I don't know	3%	8%	
5=Maybe yes	7%	10%	
6=Probably yes	22%	31%	
7=Definitely yes	59%	39%	

Appendix G - 2011-2012 Continuous Improvement Plans

Continuous Improvement Plan

Program-Level Student Learning Outcomes

Program: Computer Networking Technology – AAS DEGREE

Division: STEM Engineering Term: 2011 – 2012

Program Coordinator: Jeremy Prince

Student Learning Outcome	Assessment(s)	Results/Findings	Standard Met, Partially Met or Not Met	Action Plan
1. Demonstrate proficiency in Routing Protocols. (ITCC 1304 -CCNA 2).	Final Written and Skills Exam in ITCC 1304.	**Results:** Met **Findings:** See Below Table Fall 2012, Spring 2012, and Summer 2012: Skills Test- 163 out of 187 met std. Average= 86.6, High= 100, Low= 0 Final- 158 out of 187 met std. Average= 76.9, High= 100, Low= 39	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, in order to improve student understanding for the Skills Test and the Final Exam, implement Comprehensive Skills Challenge Lab to review concepts in the course. Therefore, the students will see critical material multiple times prior to taking the Skills Test and Final Exam. This should improve understanding for both assessments.

SkillsPassed	Skills Attempted	CCNA 2	Final Passed	Final Attempted
19	21		20	21
18	22		18	22
6	9		5	9
14	19		13	19
17	18		16	18
10	11		7	11
15	16		16	16
15	17		15	17
13	15		13	15
14	16		15	16
10	10		9	10
12	13		11	13
163	187	Net Total	158	187
Pass Ratio	0.87		Pass Ratio	0.84

2. Demonstrate CyberSecurity policy proficiency skills learned throughout the course by successfully developing a Security Policy for a small business.(20 or less employees). (ITSY 2300- Operating System Security)	Final Project in ITSY 2300.	**Results:** Met **Findings:** Fall 2011 21 out of 26 met standard Average: 80.76 High: 100, Low: 0 Spring 2012 22 out of 25 met standard Average: 87.2 High: 100, Low: 0	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, create a Case Study to produce a Security Policy that requires the implementation of lessons learned in the course. The Case Study will assist the students in the method to produce the required Security Policy for this outcome.
3. Demonstrate proficiency in Linux Installation and Configuration.. (ITSC 1316 - Linux Installation and Configuration)	Lab #6 in ITSC 1316.	**Results:** Met **Findings:** Fall 2011 18 out of 22 met standard Average: 16.36/20 High: 20/20, Low: 0/20	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	N/A- No Action Required.
4. Demonstrate proficiency in Implementing a Microsoft Server 2003 Environment by implementing Remote Access Policies. (ITMT 1450 –	Lab #8 in ITMT 1450	**Results:** Met **Findings:** Spring 2012 11 out of 11 met standard Average: 20/20 High: 20/20, Low: 20/20	**Standard:** Appropriate Rubric (Min. 70% on Assessment)	Per meeting minutes, PLO #4 will be changed from ITMT 1450 (Windows Server 2003) to ITMT 2451 (Windows Server

Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services)		Note: Three other sections were taught by a FT faculty member that is no longer with the college. His individual lab grades and forensics are not available.	**Met?:** Met	2008). A Proficiency Lab for ITMT 2451 will be established as PLO #4 in which the student will demonstrate proficiency in Administrating Windows Server 2008 by planning and implementing an Active Directory Deployment scenario. This includes creating an Active Directory infrastructure, and creating and modifying account policies.
5. Demonstrate proficiency in Planning and Implementing a Microsoft Server 2003 Environment by applying security to a Microsoft Active Directory Network including modifying Account Policies. (ITMT 1455 – Planning Implementing and Maintaining a Microsoft Windows Server 2003 Infrastructure)	Lab #7 in ITMT 1455.	**Results:** Met **Findings:** Spring 2012 16 out of 17 met standard Average: 94.11 High: 100, Low: 0	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, PLO #5 will be changed from ITMT 1455 (Windows Server 2003) to ITMT 2401 (Windows Server 2008). A Proficiency Lab for ITMT 2401 will be established as PLO #5 in which the student will demonstrate proficiency in designing and implementing a Windows Server 2008 Network Infrastructure, by planning and implementing a DNS Server role. This will involve creating a DNS configuration that would address the needs of an enterprise, and include key concepts such as Active Directory Integrated Zones, DNS

				delegations, zone transfers, and the populating of the DNS database with Host, PTR, and other required records.

Continuous Improvement Plan

Program-Level Student Learning Outcomes

Program: Cisco Systems Computer Networking Technology – AAS DEGREE

Division: STEM Engineering Term: 2011 – 2012

Program Coordinator: Cope Crisson

Student Learning Outcome	Assessment(s)	Results/Findings	Standard Met, Partially Met or Not Met	Action Plan
1. Demonstrate proficiency in Wide Area Networks. (ITCC 2310 - CCNA 4).	Final Written and Skills Exam in ITCC 2310.	**Results:** Met **Findings:** See Below Table Fall 2012, Spring 2012, and Summer 2012: Skills Test- 106 out of 106 met std. Average= 94.9, High= 100, Low= 70 Final- 96 out of 106 met std. Average= 80.7, High= 100, Low= 59	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, in order to improve student understanding for the Skills Test and the Final Exam, implement Comprehensive Skills Challenge Lab to review concepts in the course. Therefore, the students will see critical material multiple times prior to taking the Skills Test and Final Exam. This should improve understanding for both assessments.
2. Demonstrate CyberSecurity policy proficiency skills learned throughout the course by successfully developing a Security Policy for a small business (20 or less employees). (ITSY 2300- Operating System Security)	Final Project in ITSY 2300.	**Results:** Met **Findings:** Fall 2011 21 out of 26 met standard Average: 80.76 High: 100, Low: 0 Spring 2012 22 out of 25 met standard Average: 87.2 High: 100, Low: 0	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, create a Case Study to produce a Security Policy that requires the implementation of lesson learned in the course. The Case Study will assist the students in the method to produce the required Security Policy for this outcome.

Skills Passed	Skills Attempted	CCNA 4	Final Passed	Final Attempted
14	14		10	14
19	19		15	19
16	16		14	16
19	19		19	19
13	13		13	13
17	17		17	17
8	8		8	8
106	106	Net Total	96	106
Pass Ratio	1		Pass Ratio	0.91

3. Demonstrate proficiency in configuration, implementation, maintenance, and troubleshooting methodologies used CISCO Routing and Switching Technology.(ITCC 2473 - CCNP TSHOOT).	Final Written and Skills Exam in ITCC 2473.	**Results:** Met **Findings:** 3 Sections Taught. Skills Test- 23 out of 23 met std. Average= 95.7, High= 100, Low= 70 Final- 20 out of 23 met std. Average= 75.3, High= 96, Low= 0	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, in order to improve student understanding for the Skills Test and the Final Exam, implement Comprehensive Skills Challenge Lab to review concepts in the course. Therefore, the students will see critical material multiple times prior to taking the Skills Test and Final Exam. This should improve understanding for both assessments.
4. Demonstrate competence in best security practices of CISCO Routing and Switching for Enterprise and Small Businesses including VPN's, configurations of Firewalls. (ITCC 2470 – Cisco CCNA Security)	Final Written and Skills Exam in ITCC 2470.	**Results:** Met **Findings:** 2 Sections Taught. Skills Test- 17 out of 19 met std. Average= 83.0, High= 100, Low= 0 Final- 18 out of 19 met std. Average= 79.8, High= 100, Low= 67	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	Per meeting minutes, in order to improve student understanding for the Skills Test and the Final Exam, implement Comprehensive Skills Challenge Lab to review concepts in the course. Therefore, the students will see critical material multiple times prior to taking the Skills Test and Final Exam. This should improve

				understanding for both assessments.
5.Demonstrate proficiency in computer Network Design including routing and switching and security. (ITNW 2474 - Advanced Computer Networking Case Study)	Final Project and Assessment Exam in ITNW 2474.	**Results:** Met **Findings:** Spring 2012: Project- 12 out of 12 met std. Average= 100, High= 100, Low= 100 Final- 12 out of 12 met std. Average= 90.8, High= 100, Low= 75	**Standard:** Appropriate Rubric (Min. 70% on Assessment) **Met?:** Met	N/A- No Action Required.