



Course Information

Course Title	Connecting Networks (CISCO 4)
Course Prefix, Num. and Title	ITCC 1479 - Connecting Networks (CISCO 4)
Division	Technology & Business
Department	Computer Science
Course Type	WECM Course
Course Catalog Description	This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network.
Pre-Requisites	Grade of C or better in ITCC 1475, ITCC 1476 and ITCC 1478
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	4:3:3
Lab/Other Hours	
Equated Pay Hours	4.5
Lab/Other Hours Breakdown: Lab Hours	3
Lab/Other Hours Breakdown: Clinical Hours	0
Lab/Other Hours Breakdown: Practicum Hours	0
Other Hours Breakdown	0

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Hierarchical Network Design
Connecting to the WAN
Point-to-Point Connections
Frame Relay
Network Address Translation for IPv4
Broadband Solutions
Securing Site-to-Site Connectivity
Monitoring the Network
Troubleshoot the Network

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

1. Understand and describe different WAN technologies and their benefits.
2. Understand and describe the operations and benefits of virtual private networks (VPNs) and tunneling.
3. Configure and troubleshoot serial connections.
4. Configure and troubleshoot broadband connections.
5. Configure and troubleshoot IPSec tunneling operations.
6. Monitor and troubleshoot network operations using syslog, SNMP, and NetFlow

Methods of Assessment:

All outcomes will be assessed by one or more of the following:

Individual Projects
Tests and Quizzes
Lab Assignments
Final Exam
Skills Exam

Required text(s), optional text(s) and/or materials to be supplied by the student:

- CCNA Portable Command Guide Third Edition by Empson ISBN-9781587204302 eBook: 9780133381368
- USB Flash Drive
- High-speed Internet Connection

Suggested Course Maximum:

18

List any specific or physical requirements beyond a typical classroom required to teach the course.

Computer for each student, Cisco routers, switches, wireless routers, fiber cable tester, Ethernet cable testers

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Course Requirements:

Comprehensive Skills Exam: 20-25%

Comprehensive Final Exam: 20-25%

Labs / Homework: 25-30%

Chapter Tests: 20-25%

Attendance / Participation: 0-15%

Grading System:

100-90 = A

89-80 = B

79-70 = C

69-60 = D

and below = F

Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
 - Critical Thinking
 - Communication
 - Empirical & Quantitative Skills
 - Teamwork
 - Social Responsibility
 - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist