



Course Information

Course Title	CCNA 2: Switching, Routing and Wireless Essentials
Course Prefix, Num. and Title	ITCC 1444 – CCNA 2: Switching, Routing and Wireless Essentials
Division	Technology & Business
Department	Computer Science
Course Type	WECM Course
Course Catalog Description	Describes the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts; provides an in-depth understanding of how routers and switches operate and are implemented in the LAN environment.
Pre-Requisites	C or higher in ITCC 1414
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).

- Introduction to Switched Networks
- Basic Switching Concepts and Configuration
- Implementing VLAN Security
- Routing Concepts
- Inter-VLAN Routing
- Static Routing
- Routing Dynamically
- Single-Area OSPF
- Access Control Lists
- DHCP
- Network Address Translation for IPv4

Course Learning Outcomes:

1. Configure, secure, and maintain routers and switches
2. Resolve common issues with routing protocols, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks
3. Configure WLANs

Methods of Assessment:

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 Routing and Switching: Portable Command Guide, 4th Edition, Scott Empson, Cisco Press, ISBN: 978-1-58720-588-0
- USB Flash Drive
- High-speed Internet Connection

Suggested Course Maximum:

16

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.

Class maximum is set because of Cisco equipment within lab.

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

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
59 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