



**Course Information**

<b>Course Title</b>	CCNA 3: Scaling Networks
<b>Course Prefix, Num. and Title</b>	ITCC 2412 - CCNA 3: Scaling Networks
<b>Division</b>	Technology and Business
<b>Department</b>	Computer Science
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	CCNA R&S: Scaling Networks (ScaN) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches using advanced protocols.
<b>Pre-Requisites</b>	C or better in ITCC 1440 or ITCC 1476
<b>Co-Requisites</b>	None

**Semester Credit Hours**

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

**Approval Signatures**

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

## 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).

LAN Redundancy  
Link Aggregation  
Wireless  
Adjust and Troubleshoot Single-Area OSPF  
Multiarea OSPF  
EIGRP  
Adjust and Troubleshoot EIGRP  
IOS File Management

### Course Learning Outcomes:

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

1. Configure advanced routing and switching
2. Resolve common issues with OSPF, EIGRP, and STP in IP networks
3. Implement a WLAN in a small-to-medium network.

#### 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 Book:9780133381368
- 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.

The course maximum is due to the amount of equipment contained in the class.

**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