

Basic Course Information

Semester	Fall 2016	Instructor Name	Gordon Bailey
Course Title & #	Cisco Scaling Networks CIS 164	Email	Gordon.bailey@imperial.edu
CRN #	10184	Webpage (optional)	
Room	901	Office	805
Class Dates	14th Aug thru 8th Dec 2017	Office Hours	Monday thru Thursday 12:25-1:25 pm room 901.
Class Days	Monday & Wednesday	Office Phone #	760-355-6150
Class Times	6 pm to 9:10 pm 4 credit hours (units)	Office contact if student will be out or emergency	Please use Email
Units			

Course Description

This course familiarizes students with the equipment applications and protocols installed in enterprise networks with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Students benefit from hands-on exercises, including configuration, installation, and troubleshooting. (Nontransferable, AA/AS degree only)

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Implement a LAN for an approved network design (ILO1, ILO2, ILO4, ILO5)
2. Configure a switch with VLANs and inter-switch communication (ILO1, ILO2, ILO4, ILO5)
3. Implement access lists to permit or deny specified traffic (ILO1, ILO2, ILO4, ILO5)
4. Implement WAN links (ILO1, ILO2, ILO4, ILO5)
5. Configure routing protocols on Cisco devices (ILO1, ILO2, ILO4, ILO5)
6. Perform LAN, WAN, and VLAN troubleshooting using a structured methodology and the OSI model (ILO1, ILO2, ILO4, ILO5)

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Implement a LAN for an approved network design
2. Configure a switch with VLANs and inter-switch communication
3. Implement access lists to permit or deny specified traffic
4. Implement WAN links
5. Configure routing protocols on Cisco devices
6. Perform LAN, WAN, and VLAN troubleshooting using a structured methodology and the OSI model

Textbooks & Other Resources or Links

- Scaling Networks Companion Guide is the official supplemental textbook for the Scaling Networks course in the Cisco® CCNA® Academy® [Scaling Networks Companion Guide](#) Print: 9781587134340 / eBook: 9780134760896
- Cisco Simulation Software, Packet Tracer 7.1 available on the Cisco site.

- Recommended but not required Cisco CCNA Routing and Switching ICND2 200-101 Official Cert Guide from Cisco Press enables you to succeed on the exam the first time. Best-selling author and expert instructor Wendell Odom shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Wendell Odom. Copyright 2013 Edition: 1st ISBN-10: 1-58714-373-9 ISBN-13: 978-1-58714-373-1

Course Requirements and Instructional Methods

Discussion

Group Activity

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Audio Visual

Demonstration

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

Out of Class Assignments:

Submit a plan for installation of a small business network and share it with class. Research ways to verify and troubleshoot network and Internet connectivity and submit an outline of steps in the process. Research an information technology problem, find solutions, formulate recommendations, and document the process.

Reading and Writing:

Research security threats to a home or small business network and describe ways to mitigate those threats in a report using college level writing standards. Describe in detail how to configure and verify common Internet applications and basic IP services through a GUI. Explain principles of communication and of communication on a local wired network. Describe IP addresses and subnet masks, distinguish between types of IP addresses, and explain how IP addresses are obtained

Course Grading Based on Course Objectives

Grading:	Chapter Exams.....	30%
	Lab Assignments and projects		20%
	Skills Based Assessment.....		25%
	Final		25%

The grading scale is: 90 to 100% = A 70 to 79% = C
 80 to 89% = B 60 to 69% = D

Interaction with the instructor and other students is an integral part of the learning process. However, you must personally use the keyboard and mouse in completing the assignments. All work submitted for grading must be your own. Cheating will result in an 'F' for the assignment or an 'F' for the course. Ethical conduct is an absolute requirement in the IT profession.

Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class unless otherwise directed by the instructor. **Consider**: specifics for your class/program
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Academic Honesty

- Plagiarism is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question. Anyone caught cheating will receive a zero (0) on the exam or assignment and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following:
 - plagiarism
 - copying or attempting to copy from others during an examination or on an assignment;
 - communicating test information with another person during an examination;

- allowing others to do an assignment or portion of an assignment
- use of a commercial term paper service

Additional Help – Discretionary Section and Language

- **Blackboard** support center: <http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543>
- **Learning Labs:** There are several ‘labs’ on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Learning Services (library). Please speak to the instructor about labs unique to your specific program
- **Library Services:** There is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6312 if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see <http://www.imperial.edu/students/student-health-center/>. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762

Information Literacy

Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/>

Anticipated Class Schedule / Calendar

Week 1	Chapter 1: Chapter 1 Introduction to Scaling Networks 1
Week 2	Chapter 2: Chapter 2 LAN Redundancy
Week 3	Chapter 3: Chapter 3 LAN Aggregation
Week 4	Chapter 4: Chapter 4 Wireless LANs
Week 5 & 6	Chapter 5: Chapter 5 Adjust and Troubleshoot Single-Area OSPF
Week 7	Chapter 6: Chapter 6 Multiarea OSPF
Week 8 & 9	Chapter 7: Chapter 7 EIGRP
Week 10 & 11	Chapter 8: Chapter 8 EIGRP Advanced Configurations and Troubleshooting
Week 12 & 13	Chapter 9: Chapter 9 IOS Images and Licensing
Week 14 & 15	Chapter 10: Putting It All Together
Week of December 7th, final	

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