

Cabrillo College

Syllabus: CIS 83 – Fall 2011

Gerlinde Brady Phone:

831-477-5672

Office: Room 2552

Class Meetings: Mon 6:00 pm – 8:05 pm (2502) & Wed 6:00 pm – 8:05 pm Online

Office Hours: see Web at: <http://babyface.cabrillo.edu/salsa/listing.jsp?staffId=156>

E-mail: [gebrady at cabrillo.edu](mailto:gebrady@cabrillo.edu)

Web: <http://www.cabrillo.edu/~gbrady>

Course Description

This course combines semesters three and four of the Cisco Networking Academy CCNA curriculum and covers basic switching concepts, security threats, wireless network concepts and terminology, LAN segmentation, network congestion issues, VLANs, VTP, Inter-VLAN routing, network troubleshooting, access control lists, and the operation of the Spanning Tree protocol. This course also covers the various Wide Area Network services including Frame Relay, HDLC, PPP, teleworker services, and IP addressing services. This class includes extensive hands-on experience using Cisco equipment. The concepts covered in this course are general networking concepts that are not specific to Cisco equipment.

Course Format

Course meetings are twice a week, in-class on Mondays and online on Wednesdays. Class sessions will include instructor-led presentations and discussions, collaborative exercises, student research, interactive group work, and extensive hands-on lab exercises. As stated in the schedule of classes, you are expected to spend an additional 5 hours and 10 minutes working on course materials.

Course Book

There is **no required text book** for this class.

Recommended books:

- Lewis, Wayne , Ph.D. LAN Switching and Wireless CCNA Exploration Companion Guide. 1st Ed., Cisco Press: 2008.(ISBN-10: 1-58713-207-9; ISBN-13: 978-1-58713-207-0).
- Graziani, Rick, and Vachon, Bob. Accessing the WAN CCNA Exploration Companion Guide. 1st ed. Cisco Press: 2008. (ISBN-10: 1-58713-205-2; ISBN-13: 978-1-58713-205-6).
- Lammle, Todd. CCNA: Cisco Certified Network Associate Study Guide: Exam 640-802, 7th Edition
- Doyle, Jeff. Routing TCP/IP, Volume I. 2nd Ed. Cisco Press: 2005
- LabSim CCNA (640-802) - CCNA Certification Prep. ISBN 978-1-935080-00-8
- Odom, Wendell. CCNA 640-802 Network Simulator. 1st ed. Cisco Press: 2009. (ISBN # SBN-10: 1-58720-216-6 # ISBN-13: 978-1-58720-216-2).

Requirements/Prerequisites

CIS 81 is the prerequisite course for CIS 83. Students will need the knowledge and skills from CIS 81 to be successful in the class. Some of the knowledge and skills that you need to be successful are:

- internet research skills
- file management
- use of command line interface
- knowledge of TCP/IP protocols and their functions
- knowledge if IPv4 addressing including subnetting
- TCP/IP basics (OSI model)
- communication skills (oral and written)
- good MS Office skills
- time management and study skills

To be successful in the class, you need to be prepared. Complete each week's work and reading assignments ahead of time. You are expected **to attend all class sessions** and participate actively in collaborative tasks. Work your way through the assigned readings. Complete all hands-on assignments to develop important skills. If you feel overwhelmed or fall behind in the class, get help immediately. Study in groups. Help each other. Please talk to me if you need help. If you have to miss class due to illness or other responsibilities, please contact me **ahead of time** to make arrangements.

The amount of time you need to spend outside of class to be successful depends on your previous experience, your work habits, and your learning style.

Hours by Arrangements (TBA)

The Cabrillo schedule of classes lists online lab times for you to complete your assignments and practice new skills of "+5 hr 10 min per week". These online lab hours are at times of your choosing in the networking lab (room 1403) or on NetLab. The networking lab is open as shown here: [Networking/CIS Lab hours](#). It is the student's responsibility to make use of these available hours every week and record their attendance. You will need to sign in and out when you use the lab in room 1403. NetLab logs your time automatically. During these hours you will mainly be working on the hands-on assignments for this class which make up 60% of your grade. If you need help with these assignments, you can contact me via email or come to my lab hours or office hours. Arranged hours are class time and all students are expected to meet this number of hours per week to fulfill the requirements of this course. See the table at the end of this syllabus for details regarding the TBA assignments.

Excessive Absence

Class hours of absence are considered excessive when they total more than the number of hours a full-term class meets during each week of a 16-week semester. This applies proportionately to short-term day, evening, summer, winter session, and weekend classes. For example, if a student is absent for more than three hours in a summer class that, when scheduled as a full-term class during a fall or spring semester meets for three hours per week, the student's absence can be considered excessive, irrespective of the number of class meetings missed.

Excessive absence from class as defined in the above paragraph **will constitute reason for an instructor to drop a student from that class.** However, it is the student's responsibility to officially withdraw from classes by published deadlines to avoid failing grades.

(From: Cabrillo College Catalog–2010-2011)

If you need to be absent from class please notify me prior to your absence. If you miss more than four classes, **I will drop you from the course.**

Grading Policy

By default, students will receive a letter grade (A – F) in this class. The class may be taken on a pass/no pass basis. The equivalent to the letter grades A, B or C will result in a *pass*, the equivalent to a D or F will result in a *no pass*, so students will need to turn in assignments and take exams. It will **NOT** be possible to change from a letter grade to a pass/no pass after the deadline. Please refer to the Cabrillo schedule of classes for the

deadline date. Final course grades will be calculated according to the following weighting system:

Lab Exercises	100 points
Reading Quizzes	100 points
Midterm	100 points
Case Studies/Portfolio	100 points
Final	100 points

Final Grade	
100% – 90%	A
89% – 80%	B
79% – 70%	C
69% - 60%	D
59% below	F

“Incomplete” Grade Policy

A grade of “I” can only be assigned if serious extenuating circumstances prevent you from completing the coursework by the deadlines. To request an “I”, you must have completed 75% of the required course work and you must make this request well in advance of the final day of classes. A grade of “I” is not automatic; it must be arranged by mutual agreement. In general, it should be removed before the start of the following semester. I very strongly discourage students from requesting an “Incomplete” grade.

Student Learning Outcomes

1. Evaluate and construct switched network topologies which include VLANs, VTP, and Inter-VLAN routing.
2. Investigate and analyze the Spanning Tree Protocol and how it helps prevent loops in a switched network.

3. Design and implement LAN and WAN networks utilizing routing, switching, NAT, and security.

Late Assignments

There will be a number of hands-on lab exercises to help you practice new skills and deepen your understanding of the material. You are responsible for getting all assignments from the class Web site at <http://www.cabrillo.edu/~gbrady> and/or Blackboard. You might want to print assignments out before coming to class when applicable. Paper copies will not be handed out.

Late assignments can only be accepted due to illness, family emergency, or other legitimate reasons beyond your control. Assignments that are turned in late will receive a 10% point deduction for each day the assignment is overdue, unless you negotiated an extension **in advance**. Assignments submitted more than 7 days late cannot be accepted and receive a score of zero points. You can turn in up to three extra credit assignments during the semester to make up for missed work.

Classroom Etiquette/Housekeeping

- Cell phones need to be turned off or set to vibrate mode during class
- No texting, surfing the web, e-mail, etc. during class time
- Please show courtesy to the class by restricting conversation to in-class topics
- The computers (including your laptops) in the classroom need to remain powered down during lecture time, unless otherwise specified
- Please do not download anything unless asked to do so by your instructor
- Please do not change any of the classroom computer settings

Passwords

You will have to keep track of a number of passwords. Please record them in the table below, so that you will be able to refer to your records when you need to use your

password and cannot remember it. In the "real world" you would not write down your password, because it is not secure.

Site	Username	Password
CTC (1400 building)/Campus/Blackboard		
Cabrillo College Netacad Server (netacd.cabrillo.edu)		
NetLab (remote access to Cisco equipment)		
Cisco Networking Academy Server (cisco.netacad.net)		
Other		

Drop

If you need to drop the class, it is your responsibility to take the required steps. Please do not assume that I will automatically drop you if you stop coming to class. If a class is not dropped properly, you might receive an "F" on your transcript. The Cabrillo College Web site lists all the important due dates.

Special Needs

I encourage students with disabilities, including "invisible" disabilities such as chronic diseases, learning, and psychological disabilities, to explain their needs and appropriate accommodations to me during my office hour. Please bring a verification of your disability from the Learning Skills or DSP&S offices and a counselor's or specialist's recommendations for accommodating your needs.

As required by the Americans with Disabilities Act (ADA) accommodations are provided to ensure equal opportunity for students with verified disabilities. If you have a disability that requires accommodations for this class, please contact the Learning Skills Program at 479- 6220 (for students with learning disabilities and attention deficit disorders) or Disabled Student Services & Programs (DSP&S): 479-6379 to make arrangements as soon as possible.

CIS 83 (Switched networks and WANs) - Section 72343/75694 TBA Assignments

TBA (To Be Arranged) Requirement: 5 hours, 10 minutes online per week – Assignments are collected electronically in Blackboard. Assignments are completed either remotely in NetLab or in the Networking and System Administration Lab. These hours are required, tracked, and the assignments are graded. The TBA requirement is 40% of your final grade for this course. You can contact me through email or through the class forum to get questions answered and receive some hint and help.

Week Number	Weekly TBA Assignments
Week 1	Exploration 3 – Chapter 1 Lab: Subnetting Exercise, Configure a 2-subnet network with Router and PCs.
Week 2	Exploration 3 – Chapter 2 Lab: Port Security Configuration
Week 3	Exploration 3 – Chapter 2 Lab: Configure VLANs; Exploration 3 – Chapter 4 Lab: Configure Virtual Trunking protocol (VTP).
Week 4	Exploration 3 – Chapter 5 Lab; Configure and Analyze Spanning Tree Protocol (STP)
Week 5	Exploration 3 – Chapter 6 Lab: Inter-VLAN Routing Configuration
Week 6	Exploration 3 – Chapter 7 Lab: Basic Wireless configuration
Week 7	Exploration 4 – Chapter 1 Lab
Week 8	Exploration 3 – Case Study: Configure Layer 2 Topology with inter VLAN-Routing
Week 9	Exploration 4 – Chapter 1 & 2 Labs: Routing protocol Configuration and Point-to-Point Protocol (PPP) Configuration
Week 10	Exploration 4 – Chapter 3 Lab: Frame Relay Configurations
Week 11	Exploration 4 – Chapter 4 Lab: Basic Network Security Configuration
Week 12	Exploration 4 – Chapter 5 Lab: Access Control List Configuration (ACL)
Week 13	Exploration 4 – Chapter 7 Lab: Network Address Translation (NAT) Configuration
Week 14	Exploration 4 – Chapter 8 Lab: Troubleshoot Network Configurations
Week 15	Exploration 4 – Case Study: Implement WAN Configurations.
Week 16	Final Exam Monday 12/12/2011 6:00 pm – 8:50 pm