Syllabus CS 82.21A: Cisco Networking 1
CCNA1 – Network Fundamentals

Santa Rosa Junior College Petaluma Campus

Mondays and Wednesdays
Sections 4269 and 4272 – 09:00 to 13:10 and 4272 – 17:30 to 21:40
Sections 1959 and 2078 Online – Weekly Hours by Arrangement

Aug. 19 – Oct. 16, 2019
Room PC-645 and the Interwebs

4.0 Units = 8 hours in class AND 16 hours of homework per week!!! – I own you.

Fall 2019 – Important Dates:
Day Class Begins: Monday, August 19, 2019
Day Class Ends: Wednesday, October 16, 2019
Day/Time of Final Exam: Wednesday, October 16, 2019 9:00 AM - 1:10 PM
Last Day to Add without instructor's approval: Monday, August 19, 2019
Last Day to Add with instructor's approval: Wednesday, August 28, 2019
Last Day to Drop & be eligible for course fee refund: Wednesday, August 21, 2019
Last Day to Drop without a 'W' symbol: Wednesday, August 28, 2019
Last Day to Opt for Pass/No Pass: Monday, September 9, 2019
Last Day to Drop with a 'W' symbol: Tuesday, October 1, 2019

Instructor: Michael McKeever
Phone: 707.778.3960
Email: mmckeever@santarosa.edu

Office Hours: Room PC-655 or in the class room PC-645 and Zoom
Mon. & Wed. 13:10-14:10 p.m. and 16:30-17:30
Online: Tuesday 13:00 – 14:20 via Email and/or Zoom

Target Audience:
This class is for anyone desiring a practical, technical introduction to the field of networking. High school, community college, and lifelong-learning students interested in careers as network technicians, network engineers, network administrators, and network help-desk staff.

Prerequisites:
- Students should have Reading Age Level (RAL) of 14
- Basic computer literacy and awareness of the Internet
- Prior experience with computer hardware, binary math, and basic electronics desired but not required
- Background in cabling beneficial

Course Description:
CCNA 1: This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI (open systems interconnection) and TCP (transmission control protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP (internet protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Network simulator activities help students analyze protocol and network operation and build small networks in a virtual environment. Students build simple LAN (Local Area Network) topologies by applying basic principles of cabling, performing basic configurations of network devices, including routers and switches, and implementing IP addressing schemes. Network Fundamentals is the first of the four courses leading to the Cisco Certified Network Associate (CCNA) designation. CCNA 1 introduces Cisco Networking Academy Program students to the networking field.

Series Objectives:
The CCNA certification indicates knowledge of networking for the small-office, home-office (SOHO) market and the ability to work in small businesses or organizations whose networks have fewer than 100 nodes. A CCNA certified individual can:

- Install and configure Cisco switches and routers in multi-protocol internetworks using LAN and WAN interfaces
- Provide Level 1 troubleshooting service
- Improve network performance and security
- Perform entry-level tasks in the planning, design, installation, operation and troubleshooting of Ethernet, TCP/IP Networks.

By the end of the course, students will be able to:

- Explain network technologies.
- Explain how devices access local and remote network resources.
- Describe router hardware.
- Explain how switching operates in a small to medium-sized business network.
- Design an IP addressing scheme to provide network connectivity for a small to medium-sized business network.
- Configure initial settings on a network device.
- Implement basic network connectivity between devices.
- Configure monitoring tools available for small to medium-sized business networks

Student Learning Outcomes:
1. Analyze data networks supporting business communications and apply network protocol models to facilitate improved transfer of information across and Internetwork.
2. Demonstrate the importance of addressing and naming schemes at the various layers of data networks.
3. Compare and contrast fundamental Ethernet concepts and topological designs used in data networks.

CCNA 1 is an integral step towards achieving CCNA Certification.

General Information

Instructor	Michael McKeever
Home Page	https://profiles.santarosa.edu/michael-mckeever
E-Mail	mmckeever@santarosa.edu response in 24 hours during school weeks days
Phone	778-3960, leave a message, I check email MUCH more often.
Office Hours	Rm. PC-655 or in the class room PC-645 Mon. & Wed. 13:10-14:10 p.m. & 16:30-17:30 p.m.
Online Office Hours	Tuesday 13:00 – 14:20 a.m. Via Email and/or Zoom Go to NetAcad and sign into the Live session via the link. Note: Audio through VoIP
Zoom	Accessed from NetAcad, see above. This is the class online, live and archived. Note: Audio through VoIP
Textbook	**Required:** *None* *All materials are online for this class.*
Netlab	Coming soon!
Late work	**may be accepted for credit points**
Cisco Web Server	https://www.netacad.com Use this site for exams and to access the curriculum.
Lateness Policy	Life is busy and sometimes you can't get here on time due to work and traffic and all that other stuff. However, everything I say and do is amazing so you don't want to miss a moment! Attending via Zoom rather than in class is fine.
Cisco ID Number	Phone number listed with SRJC
Conduct	Students will adhere to the "student code of conduct" and computer use policy as described at https://student-conduct.santarosa.edu/ and to the "Cyber House Rules" As noted in your agreement to use the online materials owned by Cisco, Inc. you agree not to copy, download or transmit the course curriculum. Cell phones will be turned off or to silent mode during class. If you have to answer the call, leave the room before speaking.
Expectations	Because of the tight schedule we are following, it is necessary that you read the online chapter material **before** the class when the topic is scheduled. Class time will generally consist of a lecture/discussion/labs and review of online exams. **WARNING – This class may be "Flipped" without advanced notice!!!** http://flippedclassroom.org/
Exams	There are 11 online exams that you do as homework, an online final and skills final/project.
Materials	Pen, paper, lab manual, USB drive (optional), Laptop, Tablet, iPad, …
Standards	**Grade Only:** A ≥ 90%, B = 80 to <90%, C = 70 to <80%, D = 60 to < 70%, F < 60% ***Note: I do NOT round up.***
Required Hours	Two 4+ hour sessions per week, either in person or online or archive

Grading

ITEM	PERCENT	COMMENTS
Online Chapter Exams	25%	Homework - Using the Cisco Networking Academy Assessment Server. **You will be able to take them again to improve your score after we review the chapter.**
Chapter Labs	15%	To be assigned and some will be turned in for points. **Due as per the posted schedule below. Late work may not be accepted for credit points.**
Online Discussions	20%	In the Course Modules
Online Final Exam	20%	Using the Assessment Server
Skill-Based Final Exam/Project	20%	Rubric to be distributed prior to the exam

Classes Session by Session

OCA = Online Chapter Assessment, on the Cisco Networking Academy Website

SESSION	CH.	DESCRIPTIONS	TASKS – Labs & Exams
1 – Aug. 19	0 & 1	Course Intro & Explore the Network	**See Class Calendar**
2 – Aug. 21	2	Configuring a Network Operating System	**See Class Calendar**
3 – Aug. 26	3	Network Protocols and Communications	**See Class Calendar**
4 – Aug. 28	4	Network Access, beg.	**See Class Calendar**
X – Sept. 02 5– Sept. 04	 4	Labor Day Holiday – No Classes Network Access, end	 **See Class Calendar**
6 – Sept. 09 7 – Sept. 11	5 5, 6	Ethernet Ethernet, Network Layer	 **See Class Calendar**
8 – Sept. 16	6	Network Layer	**See Class Calendar**
9 – Sept. 18	6, 7	Network Layer, IP Addressing	**See Class Calendar**
10 – Sept. 23	7, 8	IP Addressing, Subnetting IP Networks	**See Class Calendar**
11 – Sept. 25	8	Subnetting IP Networks	**See Class Calendar**
12 – Sept. 30	9	Transport Layer	
13 – Oct. 02	9	Transport Layer	**See Class Calendar**
14 – Oct. 07	10	Application Layer	**See Class Calendar**
15 – Oct. 09	11	Build a Small Network, beg.	**See Class Calendar**
16 – Oct. 14	11	Build a Small Network, cont.	**See Class Calendar**
17 – Oct. 16	ð	Build a Small Network, end = Skills Final plus the Online Final on your own	**Online and Skills Finals**

Other

This syllabus is an agreement, continued registration in this course means that you agree to the policies and procedures outlined in this syllabus.
This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, the instructor reserves the right to modify, supplement and make changes as the course needs arise.

Student Conduct

We will conduct ourselves in a manner which reflects our awareness of common standards of decency and the rights of others. All students are expected to know the Student Conduct Code (https://student-conduct.santarosa.edu/) and adhere to it in this class. Students who violate the code may be suspended from 2 classes and referred to Vice President of Student Services for discipline.

Respect

The best way to learn is through active participation; therefore, we respect others when talking by being on-time, listening actively, and by being polite even when we disagree with another's viewpoint. Please turn off all electronic devices. If you use a laptop for note taking, please do so with the sound off. No food in class please.

Academic Integrity

All written work is to be original; plagiarism of any kind will result in a failing grade on that assignment. Students who plagiarize or cheat may be suspended [for one or two class meetings by the instructor] and referred to the Vice President of Student Services for discipline sanction, in cases of egregious violation. Please read the college policy/procedure on academic integrity at: https://catalog.santarosa.edu/catalog-2019-2020/academic-integrity-statement

Emergency Evacuation Plan

In the event of an emergency during class that requires evacuation of the building, please leave the class immediately, but calmly. Our class will meet in the Center of the Quad to make sure everyone got out of the building safely and to receive further instructions. If you are a student with a disability who may need assistance in an evacuation, please see me during my office hours as soon as possible so we can discuss an evacuation plan.

Accommodations for Students with Disabilities

If you need disability related accommodations for this class, such as a note taker, test taking services, special furniture, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to the instructor as soon as possible. You may also speak with the instructor privately during office hours about your accommodations. If you have not received authorization from DRD, it is recommended that you contact them directly. DRD is located in Analy Village on the Santa Rosa campus, and Jacobs Hall on the Petaluma Campus. https://drd.santarosa.edu/

WITHDRAWAL FROM CLASS

YOU have the responsibility to withdraw from class if you decide to not complete the course. To officially withdraw from a class, you must submit a drop form to the Admissions and Records Office. After the withdrawal deadline, I cannot give you a "W" grade, but instead must give you an A, B, C, D, or F, based on the assignments and tests you have completed (normally resulting in an F).

Health

Tobacco use including smoking is prohibited on all property and in all indoor and outdoor spaces owned, leased, licensed, or otherwise controlled by the District. See https://police.santarosa.edu/health-safety-regulations
Implementation of the Smoke-Free Campus Environment Policy will be the shared responsibility of every student, faculty member, staff person and visitor.

Attendance

See, https://de.santarosa.edu/sites/de.santarosa.edu/files/8.1.5P.pdf
If you miss the first two classes without making arrangements with the instructor in advanced, you may be dropped from this course.

SANTA ROSA JUNIOR COLLEGE

TECHNOLOGY ACADEMY