

# CIS 152: Routing & Switching Essentials: Winter 2021

(Last update: 31 Dec 2020)

4 Credits, Grading: A-F, 04 Jan - 15 Mar

CRN: 31856 Time: MW 1230-1530

<https://linnbenton.zoom.us/j/99927369673>

Meeting ID: 999 2736 9673

Discord Channel: <https://discord.gg/4kxQchY4>

**Cisco Networking Academy course designation:  
CCNA R&S: Routing and Switching Essentials, Version 7.00**

Instructor: Sisi Virasak

**How to contact me:**

1. <mailto:virasas@linnbenton.edu>
2. Office: MKH-108
3. Office phone: 541- 917-4617

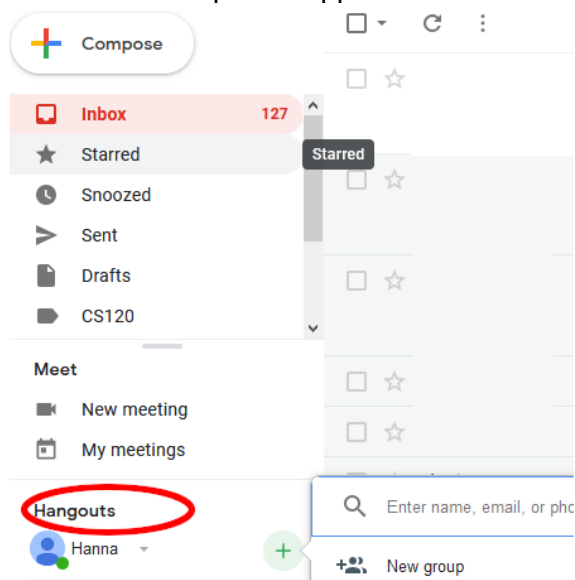
**Embedded Tutor:**

Hanna Yakavenka

**Email:** [hanna.yakavenka.8419@mail.linnbenton.edu](mailto:hanna.yakavenka.8419@mail.linnbenton.edu)

For quick questions you can use:

- **Hangouts:** which is chat embedded in your google email (for PC) if you use Android it is a separate app. Just enter email into the + field.



- **Discord:** This is Sisi's server that David's CIS152 students are welcome to join. You can have conversations with other CIS152 students to ask questions and solve problems. All you need is click the link and Discord will appear in your browser. Choose your nickname and you are set.

Server link: <https://discord.gg/4kxQchY4>

Assistant/Tutor username is **Ten#7292**

If you need more time than just a quick question we can schedule a meeting in Zoom. To schedule a one-hour meeting you need:

- Email to tutor with request [hanna.yakavenka.8419@mail.linnbenton.edu](mailto:hanna.yakavenka.8419@mail.linnbenton.edu)

**OR**

- Use [TutorTrack](#) to schedule a meeting automatically without reaching via email. You will be offered blocks of time to choose from.

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### **Course Objectives:**

*The second course of a three-part sequence in a Cisco curriculum directed toward the Cisco Certified Network Associate (CCNA) certification. Emphasizes experience in current networking technology, and includes network terminology and protocols. Topics include LANs, network topology, IP addressing, routers, router programming, and application of routing and router protocols.*

**CIS152 is the second Networking course in LBCC's Network and Systems Administration Associate of Applied Science degree program, and in LBCC's Certificate in Basic Networking program.**

### **Prerequisite:**

CIS 151 Introduction to Networking, with a minimum "C" grade and with a "Pass" recorded in the Cisco Networking Academy® global database.

### **The CCNA Program at LBCC:**

Fall term: CIS151 (4 units)

Winter term: CIS152 (4 units)

Spring term: CIS153 (4 units)

**Textbook suggested: The following book should be available the LBCC bookstore:**

- **CCNA Routing and Switching Portable Command Guide, 4th Edition**
- By Scott Empson
- Published by Cisco Press
- ISBN 978-1-58720-588-0

**Note that all curriculum materials, including lab instructions, are available on line via your Cisco Networking Academy login.**

### **Internet:**

We will use the Internet **extensively** to search out background information and to answer our questions. Students are expected to be experts at digging information from the 'Net, and there will be plenty of opportunities to practice this skill.

### **Assignments:**

**On-line Cisco Networking Academy Curriculum:** At the core of this class is the Cisco on-line curriculum. Each student will have his/her own account on the Cisco Networking Academy Server which will allow each of you to access the course via any internet connected computer at: <http://cisco.netacad.net> (**Links to an external site.**)

### **Participation/Practice Exercises:**

Practice Exercises will be given out in class and need to be turned in at the end of class. This will help you practice the concepts that we talked about in lecture. It is graded and count towards your final grade.

In week 1, I will hold a mandatory meeting to meet with all of the students. The meeting will be with Hanna, myself and the student. This will help me get to better understand how I can best help you. This may happen bi-weekly. These meetings are graded as participation.

### **Labs:**

**Lab exercises and *Packet Tracer* exercises will be assigned via the Calendar on the Netacad Website.** Lab exercises must be done in class during lab time. *Packet Tracer* simulation exercises can be done either in class during lab time or, preferably, outside of class. *Packet Tracer* exercises and other exercises in electronic format will be uploaded to the appropriate Assignment on the Netacad website. As repeatedly pointed out in the Cisco curriculum: Simulators such as *Packet Tracer* aren't in any way a substitute for our hands-on work with real networking hardware - but they can be a useful part of your learning toolkit.

Packet tracer assignments will require submitting the file for grading.

### **Exams:**

**Non-Final tests (which includes the course Pre-Test and the Practice Final Exam) will be assigned via the Calendar on the Netacad website.** They will be accessed via the Internet from the Cisco Networking Academy "Netacad" Website. You will take all your Non-Final CIS152 tests outside of class, on your own time. Of course there can't be any restrictions on "open book" etc. with that arrangement. You'll be able to take each test several times (in theory, up to 5 times). You should be able to see all available "feedback" on the questions. The NetAcad database will record your last score, so of course try to improve! :-)

### **Skills-Based Assessment:**

*The Skills-Based Assessment is an important part of the Academy assessment program. The standards of the Cisco Networking Academy are such that a passing score on the Skills-Based Assessment (to be announced, typically 70%) must be obtained in order to pass the Academy Course and be approved for advancement to the next term of the CCNA curriculum (at LBCC: course CIS153, to be offered Spring 2021).*

### **Final Exam:**

The Final Exam will be open all week (March 15-19) for you to take when you are ready. ***You are required to pass the Final Exam and Skills Exam in order to pass the course and be approved for advancement to the next term of the CCNA curriculum – CIS 153.*** If you do not pass the final exam on your first attempt, you will be permitted to take it again a day or two later. However, in that case the highest possible grade that you will receive in the class will be a C regardless of your total percentage level.

The following scale (*tentative*) will be used to determine your grade in this course:

#### **Assessment Scale:**

**Packet Tracer Labs = 30% of course credit**

**Module Exams = 20% of course credit**

**Participation/Practice Exercises = 10%**

**Skills-Based Assessment = 20% of course credit**

**Final Exam = 20% of course credit**

#### **Provisional Grading Scale:**

**A = 90-100%**

**B = 80-89%**

<b>C = 70-79%</b>
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**Academic Honesty:**

Helping, or being helped by, another student during an exam will be considered a breach of academic honesty and is grounds for receiving a zero grade and/or failing the course among other possible remedies.

**Classroom Conduct:**

- 1) Please mute microphone during class unless to ask question.
- 2) Please use the chat to post questions .
- 3) Please respect the learning environment of others and keep distractions to a minimum.

**LBCC Center for Accessibility Resources:**

Students who may need accommodations due to documented disabilities, or who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor during the first week of class. If you believe you may need accommodations, but are not yet registered with CFAR, please go to <http://linnbenton.edu/cfar> for steps on how to apply for services or call 541-917-4789.

**LBCC Comprehensive Statement of Nondiscrimination:**

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

**LBCC Statement of Inclusion:**

The LBCC community is enriched by diversity. Each individual has worth and makes contributions to create that diversity at the college. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill (related to Board Policy #1015).

**Basic Needs Statement:**

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support ([resources@linnbenton.edu](mailto:resources@linnbenton.edu) , or visit us on the web [www.linnbenton.edu/RRC](http://www.linnbenton.edu/RRC) under Student Support for Current Students). Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

## Course Schedule (Tentative):

Date	Details	Notes
Week 1 - Jan. 4	Orientation/Intro to Course and Cisco Curriculum Website/Packet Tracer  <b>Modules 1 - 4: Switching Concepts, VLANs, and interVLAN Routing</b>  <b>Lab 1 – PT 1.3.6, 1.4.7, 1.5.10, 1.6.1, 3.2.8, 3.3.12, 3.4.5, 3.5.5, 3.6.1, 4.2.7, 4.3.8, 4.4.8</b>	Modules 1-4 Exam
Week 2 – Jan. 11	<b>Modules 1 - 4: Switching Concepts, VLANs, and interVLAN Routing</b>  <b>Lab 1 – PT 1.3.6, 1.4.7, 1.5.10, 1.6.1, 3.2.8, 3.3.12, 3.4.5, 3.5.5, 3.6.1, 4.2.7, 4.3.8, 4.4.8</b>	<b>Lab 1 Due Jan 17 11:59 PM</b>  <b>Modules 1-4 Exam Due Jan 17 11:59 PM</b>
Week 3 – Jan. 18	<b>Modules 5 -6: Redundant Networks</b>  <b>Lab 2 – PT 6.2.4, 6.4.1</b>	Modules 5-6 Exam
Week 4 – Jan. 25	<b>Modules 5 -6: Redundant Networks</b>  <b>Lab 2 – PT 6.2.4, 6.4.1</b>	<b>Lab 2 Due Jan 31 11:59 PM</b> <b>Modules 5-6 Exam Due Jan 31 11:59 PM</b>

Date	Details	Notes
Week 5 – Feb. 1	<b>Modules 7 - 9: Available and Reliable Networks</b> <b>Lab 3—PT 7.2.10, 7.4.1, 9.3.3</b>	Modules 7-9 Exam
Week 6 – Feb. 8	<b>Modules 7 - 9: Available and Reliable Networks</b> <b>Lab 3—PT 7.2.10, 7.4.1, 9.3.3</b>	<b>Lab 3 Due Feb. 14 11:59 PM</b> <b>Modules 7-9 Exam Due Feb. 14 11:59 PM</b>
Week 7 – Feb. 15	<b>Modules 10-13: L2 Security and WLANs</b> <b>Lab4 – PT 11.1.10, 11.6.1, 13.1.10, 13.2.7, 13.3.12, 13.5.1</b>	Modules 10-13 Exam
Week 8 – Feb. 22	<b>Modules 10-13: L2 Security and WLANs</b> <b>Lab4 – PT 11.1.10, 11.6.1, 13.1.10, 13.2.7, 13.3.12, 13.5.1</b>	<b>Modules 10-13 Exam Due Feb. 28 11:59 PM</b> <b>Lab 4 Due Feb. 28 11:59 PM</b>
Week 9 -March 1	<b>Modules 14-16: Routing Concepts and Configuration</b> <b>Lab 5-14.3.5, 15.6.1, 16.3.1</b>	Modules 14-16 Exam
Week 10 – March 8	<b>Modules 14-16: Routing Concepts and Configuration</b> <b>Lab 5-14.3.5, 15.6.1, 16.3.1</b>	<b>Modules 14-16 Exam Due March 14 11:59 PM</b> <b>Lab 5 Due March 14 11:59 PM</b>

Date	Details	Notes
	Skills Exam and Final Exam Prep	
Finals Week -March 15	Skills Exam and Final Exam Open all week	<b>Final Exam and Skills Exam Due March 19 11:59 PM</b>