Ziko Rizk
CS285 – Network Defense Security
Spring 2022 Syllabus

Email: rizkz@linnbenton.edu	**Classroom:** Virtual
Office: MKH-110	**Class Day/Time:** Tues-Thus @ 10:00 am
	Office Hours: Online (request meeting)

Course Description and Objectives:

This course provides an introduction to the core security concepts and skills needed for the installation, troubleshooting and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices. It helps prepare students for entry-level security career opportunities and the globally recognized Cisco CCNA Security certification. The National Security Agency (NSA) and the Committee on National Security Systems (CNSS) recognizes that Cisco CCNA Security certification courseware meets the CNSS 4011 training standard. By being compliant, the Cisco CCNA Security course and certification program provides the required training for network security professionals who assist federal agencies and private sector entities to protect their information and aid in the defense of the nation's vital information resources. This course is a hands-on, lab-oriented curriculum with an emphasis on practical experience to help students develop specialized security skills, along with critical thinking and complex problem-solving skills. Students who enroll in Network Defensive Security are expected to have fundamental router/switching level networking knowledge and skills, along with basic PC and internet navigation understanding.

Prerequisite:

CIS 152 Introduction to Networking, with a minimum "C" grade
CS 284 Computer Security & Information Assurance, with a minimum "C" grade

Required Course Materials {same textbook for all network course}:

1) CCNA Routing and Switching Portable Command Guide, 4th edition.
   a. by Scott Empson
   b. published by Cisco Press, 2016
   c. ISBN978-1-58720-588-0

Learner Outcomes:

1) Develop an in-depth understanding of network security.
2) Design, implement, and support security for networked devices and data.
3) Earn critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
4) Gain industry recognized skills aligned with the National Institute for Standards and Technology (NIST) Cybersecurity Framework.

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Grades Table:

Quizzes/Assignments/Exams	Weight
Chapter Labs	35%
Chapter Quizzes	10%
Chapter Exams	20%
Skilled Based Assessment (SBA)	10%
Final Exam {must pass to pass course}	25%
TOTAL	100%
Grades: **IMPORTANT:** A grade of "C" or higher is considered passing. **IMPORTANT:** If you fail the first final exam attempt, you can take a second time. If you score over 70% on the second attempt, the grade will be limited C.	A: 90-100% B: 80-89% C: 70-79% D: 60-69% F: < 60% P: >= 70% NP: < 70%

Instructor and Student Responsibilities:

Instructor	Students
I commit to starting all classes on time.	You agree to attend all classes and to comply with college code of conduct.
I commit to showing up to class prepared.	You agree to actively participate in class discussions and exercises.
I commit to balancing class time between lecture and hands-on exercises.	You agree to spend an average of 5-6 hours per week on readings and assignments outside of class (see Moodle for details).
I commit to responding to your email within 24 hours (no voice mail please).	You agree to complete all readings and course assignments on time (due on Sunday night).
I commit to grading assignments within 3 days (after due date).	You agree to collaborate professionally with fellow students on the class project.
If I'm unable to come to a class, I commit to doing my best to find a substitute instructor while keeping you up-to-date.	

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.

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:
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 , or visit us on the web 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.

Week	Activity	Due
Week-1 Mar 28	➢ Welcome, introductions, scope & set clear expectations. ➢ Week-1 scope = Ziko's introduction to Network and Chapter-1 (Modern Network Security Threats). ➢ Study Chapter-1 (including Text, Videos, Check Your Understanding, and quiz) ➢ Chapter-1 labs ➢ **Chapter-1 Exam**	Apr 3 @ 11:55 pm
Week-2 Apr 4	➢ Week-2 scope = Chapter-2 (Securing Network Devices). ➢ Study Chapter-2 (including Text, Videos, Check Your Understanding, and quizzes) ➢ Chapter-2 labs ➢ **Chapter-2 Exam**	Apr 10 @ 11:55 pm
Week-3 Apr 11	➢ Week-3 scope = Chapter-3 (AAA). ➢ Study Chapter-3 (including Text, Videos, Check Your Understanding, and quiz) ➢ Chapter-3 labs ➢ **Chapter-3 Exam**	Apr 17 @ 11:55 pm
Week-4 Apr 18	➢ Week-4 scope = Chapter-4 (Implementing Firewalls) and Chapter-5 (Implementing Intrusion Prevention). ➢ Study Chapter-4 and Chapter-5 (including Text, Videos, Check Your Understanding, and quizzes) ➢ Chapter-4 and Chapter-5 labs ➢ **Chapter-4 exam** ➢ **Chapter-5 Exam**	Apr 24 @ 11:55 pm
Week-5 Apr 25	➢ Week-5 scope = Chapter-6 (Securing LANs). ➢ Study Chapter-6 (including Text, Videos, Check Your Understanding, and quizzes) ➢ Chapter-6 labs ➢ **Chapter-6 Exam**	May 1 @ 11:55 pm
Week-6 May 2	➢ Week-6 scope = Chapter-7 (Cryptographic Systems) and Chapter-8 (Implementing VPSs). ➢ Study Chapter-7 and Chapter-8 (including Text, Videos, Check Your Understanding, and quizzes) ➢ Chapter-7-8 labs ➢ **Chapter-7 exam** ➢ **Chapter-8 Exam**	May 8 @ 11:55 pm

Week-7 May 9	➢ Week-7 scope = Chapter-9 (Implementing Adaptive Security Appliance - ASA). ➢ Study Chapter-9 (including Text, Videos, Check Your Understanding, and quizzes) ➢ Chapter-9 labs ➢ **Chapter-9 Exam**	May 15 @ 11:55 pm
Week-8 May 16	➢ Week-8 scope = Chapter-10 (Advanced ASA). ➢ Study Chapter-10 (including Text, Videos, Check Your Understanding, and quiz) ➢ Chapter-10 labs ➢ **Chapter-10 exam**	May 22 @ 11:55 pm
Week-9 May 23	➢ Week-9 scope = Chapter-11 (Managing a Secure Network). ➢ Study Chapter-11 (including Text, Videos, Check Your Understanding, and quizzes) ➢ Chapter-11 labs ➢ **Chapter-11 exam**	May 29 @ 11:55 pm
Week-10 May 30	*** Monday, May 30 is Memorial Day = Holiday *** ➢ Week-10 scope = wrap-up Skill-Based Assessment (SBA). ➢ Practice SBA ➢ SBA	June 5 @ 11:55 pm
Week-11 June 6	➢ Week-11 scope = Final exam and grades. ➢ **Final exam (must pass to pass course – see "Grades Table" in syllabus):** ➢ **Tues, June 7 at 9:30 am** ➢ LBCC Final Exam Schedule https://www.linnbenton.edu/calendars/finals-schedule.php	