



Instructor: Christy Buckner

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COURSE DESCRIPTION: This course provides a hands-on approach to studying introduction to network security and skills needed for monitoring, detecting, investigating, analyzing and responding to security events, thus protecting systems and organizations from cybersecurity risks, threats, and vulnerabilities. Students will have extended experience in Cisco routing and switching as it relates to security. The course meets the specifications for the following industry certification programs; TestOut's SecurityPro and CompTIA's Security+ and the (ISC)2's SSCP.

High School Credits: 3 units (2 semesters)

LSR7 Weighted Credit: .666

NON Lee's Summit Schools Weighted Credit: Varies by School

PREREQUISITES: DevSecOps or Teacher Recommendation

INSTRUCTIONAL PHILOSOPHY: Students will learn introduction to network security through hands-on lab exercises, case studies and projects to help the students acquire an understanding and appreciation of real-world cybersecurity challenges, policies and practices. Throughout the courses, students are presented with problem-solving situations for which they must apply technical, academic, and collaborative, problem solving and critical-thinking skills.

ESSENTIAL STANDARDS: Upon successful completion of this course, the student's acquired competencies include:

- Explain network security, describe various threats, and evaluate the risks.
- Explain how Authentication, Authorization and Accounting (AAA) is used in a network and implement firewall and adaptive security appliance (ASA) technologies on these devices using both CLI and GUI interfaces.
- Analyze the risk and benefits of layer 2 switching technologies to secure and protect a Local Area Network.
- Describe the concepts of cryptography, and explain how it ensures data integrity and authentication.
- Implement secure private networks utilizing Virtual Private Network (VPN) technologies, and Adaptive Security Appliances (ASA) and troubleshoot when necessary.
- Utilizing knowledge of security best practices, implement a secure network and explain how to develop a comprehensive security policy.

ACADEMIC INTEGRITY: STA instructors have a responsibility to evaluate student progress in learning and to evaluate student work for assigning course credit. Academic integrity on the part of the student requires an honest effort on all assignments, exams, presentations, products, and performances that are part of graded course elements. "Honest effort" means doing one's best, but also not doing better than one's best through unfair means. Student cooperation and honest effort on assessment activities are vital to the effectiveness of the outcomes

assessment program. By giving an honest effort on surveys, exams, or other activities that are used for assessment purposes, students contribute in meaningful ways to the integrity and value of their education.

CREDIT BY CERTIFICATION: Offered to eligible students through MCC.

<https://mcckc.edu/programs/secure-systems-administration/credit-by-certification.aspx>

CODE OF CONDUCT: Students are expected to conduct themselves in a manner consistent with the educational purpose of this institution. Conduct deemed unacceptable toward maintaining a proper educational atmosphere will subject the student to disciplinary action in accordance with STA and LSR-7 policies.

To be successful in this course, students are expected to:

1. Safety first – **ALWAYS!** Cyber & Physical
2. **NO** food or drinks allowed in the computer labs.
3. Show **RESPECT!** To yourself, all staff members, fellow students and equipment in the classroom with your actions and your words.
4. Be **RESPONSIBLE!** Bring necessary materials to class daily. Listen carefully and follow the directions closely the *first* time. Complete assignments in a timely manner. Stay on task during independent practice and work days. Clean up the work area before leaving.
5. Communicate with the instructor as soon as the needs arise.

GRADING POLICY: Grading will be figured using the Summit Technology Academy approved grading scale. Grades are cumulative throughout the semester. The student's grade will be based on level of competencies within essential standards. Evidence will be accumulated in the following areas: Daily Activities, Exams, Professional Development, Certification and Final Exam.

GRADING CATEGORIES	
Daily Activities (see explanation below)	40%
Exams (end of chapter or unit)	30%
Professional Development	10%
LSR7 Semester Final / Certification	20%
TOTAL SEMESTER GRADE PERCENTAGE	100%

DAILY ACTIVITIES: Credit for daily activities will consist of a combination of all in-class, out-of-class, and homework assignments not indicated above. These assignments include, but are not limited to the following: quizzes, simulations, packet tracer exercises, Netlab hands on labs, and writing assignments.

The following standardized grading scale is used for STA:

A	95-100	B	83-86	C	73-76	D	63-66
A-	90-94	B-	80-82	C-	70-72	D-	60-62
B+	87-89	C+	77-79	D+	67-79	F	59 & below (No Credit)

Colleges use a four point system of grading (A= 4, B=3, C=2, D=1, F=0) without a minus and plus option.

TUTORING/EXTRA HELP PLAN: STA utilizes a pyramid of interventions in order to ensure students successfully meet the course requirements. Tutoring or extra help can be obtained by contacting the STA teacher through email, phone or Schoology learning management system. The teacher will provide either immediate help, set up a time to meet, or utilize an online video conference method.

ELECTRONIC GRADEBOOK/PARENT CONNECT WEBSITE: Grades are updated at least once a week in PowerSchool. The link is on the district website and instructions are here:
<http://www.lsr7.org/parents/power-school/>.

ACADEMIC LETTERING: Any student who has maintained a 94.5% or higher in a STA program for both semesters of the STA course (through the 5th grading period) will receive an academic letter. Refer to the STA student hand book for additional requirements or stipulations.

ATTENDANCE POLICY: Regular attendance reflects dependability. The experience gained by students in the laboratory cannot be duplicated in the event of absence. **Summit Technology Academy's policy may differ from that of the sending school and will be in effect for the period of attendance at STA.**

A student shall be allowed no more than nine (9) absences, excused or unexcused, per semester in any one class. When a student reaches 9 days, the school will send an informational letter to the parents, regardless of prior contact by phone or conference. The letter serves as notification of the number and type of absences by the student in each class. On the tenth (10) absence, in any one class, the student will not earn credit for that class. Students will have the opportunity to work with their administrator or teacher to make up missed time prior to the end of the semester. If a student still has 10 or more absences at the conclusion of the semester the student will be required to complete an attendance waiver appeal. A waiver to maintain full credit must be submitted by the end of the semester. This waiver should include documentation of illness, funeral, or family emergency from a medical doctor, dentist, minister, or other official source. The waiver should be turned into the attendance office.

TARDY POLICY: Tardies will be issued according to the student handbook. Students are on time if they are seated in the classroom at 07:55 for AM session or 11:55 for PM session and have begun working on the bell work. Please take care of water-drinking and restroom needs BEFORE the class begins.

DRIVING PRIVILEGES: Driving to STA is a privilege and can be revoked at any time. Students are allowed to drive to STA as long as their sending school allows them to drive and a permit is on file. Driving permits may be revoked if a student is frequently tardy or late to school. Please refer to the [STA student handbook](#) for full driving/parking policy.

ELECTRONICS POLICY: No electronics or headphones are allowed in the classroom unless being used in the educational process as directed by the instructor. Electronics should be placed in backpacks or purses and out of sight. Students are encouraged to interact and help one another when appropriate.

MAKE-UP WORK / LATE WORK: Assignments that are late due to an Excused Absence must be submitted in accordance with the LSR7 policy.

- Any assignment submitted one school day late will be reduced by 25%
- Any assignment submitted two days late will be reduced by 50%.
- Any assignments received 3 or more days late will be awarded no credit

Any other accommodations must be made in advance between the student and the teacher.

DAILY MATERIALS NEEDED:

- Google Account - Provided by LSR7
- Writing Utensils - Pencil / Pen & Highlighters
- Earbuds / Headphones
- TestOut, Cisco Networking Academy and Netlab - Provided by LSR7
 - Each student will utilize his or her personal username and password combination to the curriculum providers' websites. Students should remember not to share their curricular resources or they will be in violation of the acceptable use policy and may lose access to the course material.

Students are required to utilize technology for various assignments. Access outside of class is required.

CERNER SCHOLARS INTERNSHIP OPTION: After at least one semester of the Cybersecurity course, students can apply for Intern in STEM and intern at Cerner during the fall and/or spring semesters. [Click here](#) to learn more about Cerner Scholars.