UVU | UTAH VALLEY UNIVERSITY™

Master Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: https://catalog.uvu.edu/

Semester: Spring
Course Prefix: CYBR
Course Title: Information Security Fundamentals

Year: 2025
Course and Section #: 2700 - 001,X01, X02
Credits: 3

Course Description

Explores introductory information and cybersecurity concepts: security technologies, methodologies, and tools. Includes security models, risk assessment, threat analysis, attack types, encryption technologies, security implementation, access controls, business continuity, and security policies. Discusses current topics, trends, and career opportunities in information security. Includes lab assignments covering information security principles.

Course Attributes

This course has the following attributes:

☐ General Education Requirements
☐ Global/Intercultural Graduation Requirements
☐ Writing Enriched Graduation Requirements
☒ Discipline Core Requirements in Program
☐ Elective Core Requirements in Program
☐ Open Elective
Other: *Click here to enter text.*

Instructor Information

Instructor Name: Kodey S. Crandall, George Hickman

Student Learning Outcomes

1   Describe information security threats and attacks.
2   Identify methods, tools, and techniques for securing information.
3   Describe good information security practices.
4   Discuss issues related to access control.
5   Describe the importance of information security policies.
6   Explain risk management concepts in the context of information security.
7   Discuss career opportunities and relevant credentials in the field of information security.

Course Materials and Texts

Security+ Guide to Network Security Fundamentals, Eighth Edition
Cengage Learning, By Mark Ciampa ISBN: 9798214000787 © 2025

Course Requirements

Course Assignments, Assessments, and Grading Policy

Activity	Percent
Review Questions	10
NetLabs	25
Hands-On Labs	10
Chapter Quizzes	10
Midterm Exam	15
Final Exam	20
Discussion Boards	10
Total	100

Late Work Statement:
Only Lab assignments (HO labs and NetLabs) can be submitted late. There is a 5% per day deduction for late work. Work beyond 18 days late will receive 10% maximum score. Other work cannot be submitted late. ALL LAB ASSIGNMENTS MUST BE COMPLETED TO GET CREDIT (PASS) THE CLASS.

Review Questions:
The "Review Questions" from the back of every chapter are assigned as homework. They are in Canvas as quizzes, but they are open book and contain the same questions and answer choices as found in the textbook at the end of each chapter. They are worth a total of 10% of your grade. Please plan ahead, as all Review Questions are completed online and are due in Canvas by 11:55 PM on the due date. NO LATE Review Question assignments will be accepted. You MAY submit them early, though. Homework is due on the date shown on the schedule.

HO Labs:
The "HO" Lab assignments are "Hands-on" (lab) homework projects assigned from some chapters in the textbook. HO Lab assignments are worth 10% of your grade. Acceptable homework submitted by the deadline will receive up to full credit. HO Lab Homework submitted late will be graded with a 5% deduction per day. Lab assignments submitted over 7 days late will be accepted but will receive only 10% credit. It is to your advantage to submit homework by the due date. No Lab Homework will be accepted after the last day of class (Which is the day before finals week).

For the HO labs, you will use a UVU-supplied Virtual Machine (VM) running Windows. You will be installing many trial and demo products, as well as some products like keyloggers, that you probably do not want on your production machine. For this reason, you will want to complete the book's hands-on (HO) labs in the provided VM environment.

Please note that some of the projects can be dangerous (like changing ARP tables or MAC addresses) or can be considered malicious activity by Network administrators (like port scans), so I would NOT recommend doing these in a production work environment! It could get you fired!

There is a possibility that some of the Hands-on assignments may not work exactly as written–they depend heavily on the web, so pages may no longer exist, free downloads may no longer be free, etc. If an assignment does not work as expected, please let me know so I can point you in the right direction. Deliverables for lab assignments include a written description of what you did AND what you learned in

the experience (especially if you had to vary from the published directions), as well as screenshots of any responses or reports generated. You do not need to submit the whole report if it is several pages long.) I am not looking for a travel log here (I clicked this, I saw this, here's a photo): tell me things you had not known about or done before, your reactions to the lab, and what value or applicability you find in the exercise.

NetLabs Labs:
There are also "NL" (lab) homework projects (not from the book) that will be assigned. These will be completed in the NetLab virtual environment. You will need to schedule time in advance to do these labs. Only a few people at a time can use the NetLab servers, so do not plan on doing your labs the last hour before they are due unless you have reserved that time. "NL" Lab assignments are worth 25% of your grade. Acceptable homework submitted by the deadline will receive up to full credit. NetLab Homework submitted late will be graded with a 5% deduction per day. Lab assignments submitted over 7 days late will be accepted but will receive only 10% credit. It is to your advantage to submit homework by the due date. No Lab Homework will be accepted after the last day of class (Which is the day before finals week).

To login to the NetLab environment, you must either be ON CAMPUS, or connect by the UVU VPN from off-campus. To obtain VPN access, see https://www.uvu.edu/itservices/information-security/vpn_student-employee-access.htmlLinks to an external site.

Quizzes:
There will be quizzes on each chapter from the textbook. Chapter quizzes are given online through Canvas. There will be no makeup quizzes given, so please plan time to take them to avoid missing them. You MAY take them early, though. All quizzes are open-book, and you have 15 minutes to take each one, so I suggest studying in advance; if you look up each answer, you will likely run out of time. Quizzes will count for 10% of your grade.

Exams:
There will be a mid-term exam and a comprehensive final exam. These will be given in Canvas. The exams will cover the assigned reading as well as any additional material presented. The midterm exam will count for 15% of your grade. The final will count for 20% of your grade.

Discussion Boards:
You will be required to participate in a few discussion boards during the semester. They are an "Ice Breaker" where you will get to know the students in the class. The other two are exam preparation discussion boards where you will write exam questions (part 1), provide a key (part 2), and comment on other's posts (part 3). These discussion boards will be worth 10% of your final grade.

Required or Recommended Reading Assignments
Textbook Chapter Readings

General Description of the Subject Matter of Each Lecture or Discussion
The incorporation of generative artificial intelligence (AI) tools and technologies is encouraged to enhance the learning experience and facilitate the learning process. Generative AI refers to computer systems capable of producing creative outputs, such as text, images, or other content, based on patterns and data provided to them.

Acceptable Use:
- Students are encouraged to engage with generative AI tools responsibly and ethically, adhering to the principles of academic integrity.
- The use of generative AI for assistance in understanding course concepts, brainstorming ideas, or enhancing creativity within the scope of assignments is permissible.
- However, the direct use of generative AI to complete graded assignments or assessments is not allowed unless explicitly stated in the assignment instructions.

Academic Integrity:
- Plagiarism, including the use of generative AI to generate content without proper attribution, is a violation of academic integrity. Any instance of plagiarism will be addressed according to the university's academic policies.

Attribution:
- If generative AI tools are used to assist in the creation of any content submitted for assessment, students must clearly acknowledge and attribute the use of such tools in their work.

Learning Opportunity:

- Engaging with generative AI can provide valuable insights into emerging technologies. The responsible use of these tools aligns with the development of critical thinking and ethical decision-making skills.

Discussion and Questions:
- Feel free to ask questions about the appropriate use of generative AI in this course. Open discussions on the ethical considerations and implications of AI are encouraged.

By enrolling in this course, you acknowledge and agree to adhere to the guidelines outlined in this statement regarding the use of generative AI.

Required Course Syllabus Statements

Generative AI
Click here to enter text.

Using Remote Testing Software
☐ This course does not use remote testing software.

☒ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities
Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU Accessibility Services at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity
At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in UVU Policy 541: *Student Code of Conduct*.

Equity and Title IX
Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation
UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a specially dedicated space for meditation, prayer, reflection, or other forms of religious expression.