

Fundamentals of Information Technology Security
CSEC 1110
Lab 10

- Contact your instructor with your questions about the assignments.
- The student must insure all the answers are free from any malware.
- The student must insure all answers are legal as defined by the class syllabus.
- All parts of your answers must be neat and easy to read.
- Paragraphs are at least four properly constructed English sentences.
- Embedding documents within documents does not work with the D2L Bright Space assignments.
- Plagiarism will not be tolerated.
- Unless noted, all lab sections must be done as unprivileged login.

Lab 10: Network Encryption

- 10.1. Each part is worth eight points for a maximum of twenty-five points. Upload D2L Bright Space Assignment section 10.1 before the due date found in the csec1110a.pdf document. The text must be readable by the instructor. Submit a Portable Document Format (PDF) or word processing file containing your answers.
- 10.1.1. Provide the grant of permission to port scan on the network. All tests must occur during the permission time. A properly signed permission statement is required for any lab section credit. [5 points]
- 10.1.2. Report the scanner system IP addresses and scanner version. The scanner host and target systems may not be the same system. Please label your answer. [4 points]
- 10.1.3. Provide a successful ping output from the scanning host to the host to be scanned. [5 points]
- 10.1.4. Report all the findings of an external base port scanner similar to NMAP against a host with OSSEC running properly utilizing “Intense Scan, all TCP ports”. The timestamps must be in Central Time or UTC time. Please label your answer. [5 points]
- 10.1.5. For each open port found, explain why it should or should not be open. [5 points]
- 10.1.6. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [1 point]
- 10.2. Each part is worth twelve points for a maximum of twenty-five points. Upload D2L Bright Space Assignment section 10.2 before the due date found in the csec1110a.pdf document. The text must be readable by the instructor. Submit a Portable Document Format (PDF) or word processing file containing your answers.
- 10.2.1. Provide a copy of the OSSEC log file after performing a NMAP “intense Scan, all TCP ports” scan. [6 points]
- 10.2.2. Provide a copy of the OSSEC active response log file after performing a NMAP “intense Scan, all TCP ports” scan. [6 points]
- 10.2.3. Provide the source code appropriate to the host with the following attributes. [6 points]
- 10.2.3.1. The code purpose is clearly identified.
- 10.2.3.2. All sources of help are identified. This includes people, web sites, and AI program(s).
- 10.2.3.3. The author name and date
- 10.2.3.4. The code will extract the log entries for this section into a csv or similar type of file.
- 10.2.4. Provide the output of the source code showing at least two entries. [6 points]
- 10.2.5. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [1 point]
- 10.3. Each part is worth five points for a maximum of twenty-five points. Upload each section answer to the D2L Bright Space Assignment section 10.3 before the due date found in the 2224a.pdf document.. Submit a Windows or UNIX text file with the appropriate Windows extension.
- 10.3.1. Provide the complete text of a job advertisement related to your major you might apply. [12 points]
- 10.3.2. Provide a complete copy of your resume for the submitted job advertisement. The resume must include. [12 points]
- 10.3.2.1. Your Name
- 10.3.2.2. Your Professional Contact Information
- 10.3.2.3. No spelling or grammar errors
- 10.3.2.4. How you meet or will meet each requirement in the job advertisement
- 10.3.2.5. The resume communicates all requested information in a very quick reading.
- 10.3.3. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [1 point]
- 10.4. This section is one document. Upload your answer(s) to the D2L Bright Space Assignment section 10.4 before the due date found in the 2224a.pdf document. In a perfect world, you should complete all the lab sections

before completing this lab section; however, you must wait to complete this lab until week 14 of the semester. Submit a Portable Document Format (PDF) or word processing file containing your answers.

- 10.4.1. Identify the lab or lab section that was most difficult for you. Provide at least one sentence explaining why this was the most difficult lab or lab section. [6 points]
- 10.4.2. Identify the lab or lab section that was the easiest for you. Provide at least one sentence explaining why this was the easiest lab or lab section. [6 points]
- 10.4.3. Identify the lab or lab section you learned the most. Provide at least one sentence explaining why you learned the most from this lab or lab section. [6 points]
- 10.4.4. Identify the lab or lab section that you think needed more detail. Provide at least one sentence explaining why you think more detail is needed. [6 points]
- 10.4.5. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [1 point]