

Fundamentals of Information Technology Security
CSEC 1110
Lab 06

- 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.

Lab06: Secret and Public Keys

- 6.1. Upload each section answer D2L Bright Space Assignment section 6.1 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.
 - 6.1.1. Provide a comprehensive list of digital certificates considered authoritative by your operating system or a browser. Please label your answer. [8 points]
 - 6.1.2. Explain how to add and delete a digital certificate to the list you provided. Remember to cite any sources of information you use. Please label your answer. [8 points]
 - 6.1.3. Using at least one paragraph, explain the impact of adding or removing a digital certificate. Remember to cite any sources of information you use. [8 points]
 - 6.1.4. 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]
- 6.2. Upload each section answer D2L Bright Space Assignment section 6.2 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.
 - 6.2.1. Provide evidence of successfully concealing a message using steganography. [6 points]
 - 6.2.2. Provide evidence of successfully extracting/viewing the steganography concealed message on a different host. This host is not the original host. [6 points]
 - 6.2.3. Provide evidence of successfully extracting/viewing the steganography concealed message on a different host. This host is not the original or second host. [6 points]
 - 6.2.4. In paragraph, explain how steganography could be used to enhance security. [6 points]
 - 6.2.5. 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]
- 6.3. Upload each section answer D2L Bright Space Assignment section 6.3 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.
 - 6.3.1. Download a copy of the class permission form. Complete the form requesting permission to collect network traffic on the class network. Please do not send the permission form as an attachment. [8 points]
 - 6.3.2. Submit a copy of the completed class permission form with your instructor's **verified** correct digital signature. [8 points]
 - 6.3.3. Identify at least three different networks. Provide a way to identify the network and the network owner. [8 points]
 - 6.3.4. 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]
- 6.4. Upload each section answer D2L Bright Space Assignment section 6.4 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.
 - 6.4.1. Identify a current security breach that could happen to a system you control. [12 points]
 - 6.4.2. Provide the following information about the identified security breach. [12 points]
 - 6.4.2.1. How do you know the security breach has happened?
 - 6.4.2.2. How can you tell when the breach happened and how long has the breach occurred?
 - 6.4.2.3. What are the log file entries that support the investigation?
 - 6.4.2.4. What is the maximum damage the security breach can cause?
 - 6.4.2.5. How quickly can the breach cause maximum damage?
 - 6.4.2.6. How quickly will you notice and respond appropriately?
 - 6.4.2.7. What are at least two things that could go wrong as a defender?

6.4.3. 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]