Foundation of Cyber Security Final Project:

This course's final project will be a group simulation project.

Scenario:

Your team is a security advisory panel. I (the professor), am a senior executive of a company's network security department and currently facing some complex problems. I desperately needed a professional team of cybersecurity engineers to help me with these issues, so I am conducting interviews to see who I want to take lead in our next initiative.

During the initial interview, I will elaborate on the problems the company is currently encountering, and I hope your team can provide me with suggestions and solutions. I will provide a different video as a presentation of the recruitment interview session, and ask your team to plan and design your proposal after completing the video.

Project Information:

In this project, students need to judge the types of network security problems encountered by the company through video and analyze the problems encountered professionally.

Students need to collect data, conduct investigations, and make professional suggestions in their respective positions through different divisions of responsibilities.

Your group will need to come up with viable solutions to current security issues. At the same time, it provides preventive suggestions for preventing the same type of problems that may occur in the future.

Project Specifics and Timeline:

End of week 3:
- Select a group you wish to work with.

- Select which industry of interest or organization:
    - *Insurance,* **Guyco**
    - *Software and Internet,* **MacroHard**
    - *Finance,* **Fortune Crypto Investment Company**

- ○ *Healthcare,* **Wellbeing Health**
- ○ *Government,* ***Dept. of Defense***

Week 4 and 5:

Based on the company summary you will be provided, collaborate with your team to find moments of opportunity for improving the company's network security by identifying the types of potential threats.

Teams should start their group report by this week

Each team is required to submit a team report, which should include at least the following:

- Detailing the responsibilities of each team member and describing what each has done.
- How did your team identify risks and what methods did you use?
  - ○ In what ways is it identified?
- Once the risk has been established, how did you develop the solution? Why use this method?
- And what difficulties did your team have in the process of solving this problem for you?

Week 6:

At the start of Week 6:

- "Present your proposal to the senior management"
  - ○ This can be completed by uploading a recording of your presentation directly to Brightspace.

During week 6:

- Peer Feedback
  - ○ Students need to give feedback to all group members.
  - ○ Review and provide feedback/commentary for at least 2 other group proposal presentations.

End of Week 6:
- Make adjustments based on feedback and submit your finalized group report on Brightspace

- Student Reflection
  - ○ One-page reflection on the project. What did you previously know about the topic? What additional research did you have to investigate? Were there any obstacles? Were there any "a-ha" moments?

Simulation: Final Group Project

Based on Problem Solving VALUE Rubric

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

Learning Goals:

- *Recognizing the principles and importance of network security, maintaining network security starts from oneself.*
- *Identify different types of cyber threats, understand their differences, and know how to deal with them.*
- *Identify and prevent malicious cyber attacks*

		Excellent 4	Proficient 3	Basic 2	Below Basic 1
Define Problem	__/4	Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors of cyber threats.	Demonstrates the ability to construct a problem statement with evidence of the most relevant contextual factors of cyber threats, and the problem statement is adequately detailed.	Begins to demonstrate the ability to construct a problem statement with evidence of the most relevant contextual factors of cyber threats, but the problem statement is superficial.	Demonstrates a limited ability in identifying a problem statement or related contextual factors of cyber threats.
Identify Strategies	__/4	Identifies multiple approaches for solving the simulated problem and clearly applies cybersecurity best practices.	Identifies multiple approaches for solving the simulated problem, only some of which apply to cybersecurity best practices.	Identifies only a single approach for solving the problem that applies to cybersecurity best practices.	Identifies one or more approaches for solving the problem that applies to cybersecurity best practices.
Propose Solutions	__/4	Proposes one or more solutions that indicate a deep comprehension of the problem. Solutions sensitive to contextual factors as well as all of the following: ethical, logical, and specific industry policies.	Proposes one or more solutions that indicates comprehension of the problem. Solutions are sensitive to contextual factors as well as one of the following: ethical, logical, or cultural dimensions of the problem.	Proposes one solution that is "off the shelf" rather than individually designed to address the specific contextual factors of the problem.	Proposes a solution that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
Evaluation of Solutions	__/4	Evaluation of solutions is deep and elegant (for example, contains thorough and insightful explanation) and includes, deeply and thoroughly, all of the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is adequate (for example, contains thorough explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is brief (for example, explanation lacks depth) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is superficial (for example, contains cursory, surface-level explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.
Execution	__/4	Presentation and proposal are well organized and presented clearly with few or no errors in mechanics, usage, grammar, and spelling.	Presentation and proposal are organized and presented, but lacking structural elements with few errors in mechanics, usage, grammar, and spelling.	Presentation and proposal are organized for the most part. Lacking clear or logical organizational structure for the most part with several errors in mechanics, usage, grammar, and spelling	Presentation and proposal is poorly organized. No clear or logical organizational structure with major errors in mechanics, usage, grammar, spelling

Total: ___/20

NOTES: