

ITT Technical Institute
IS4799
Information Systems and Cybersecurity
Capstone Project
Onsite Course

SYLLABUS

Credit hours: 4.5

Contact/Instructional hours: 60 (30 Theory Hours, 30 Lab Hours)

Prerequisite(s) and/or Corequisite(s):

Prerequisites: Completion of a minimum of 171 credits earned in the program of study including IS4670 Cybercrime Forensics or equivalent

Course Description:

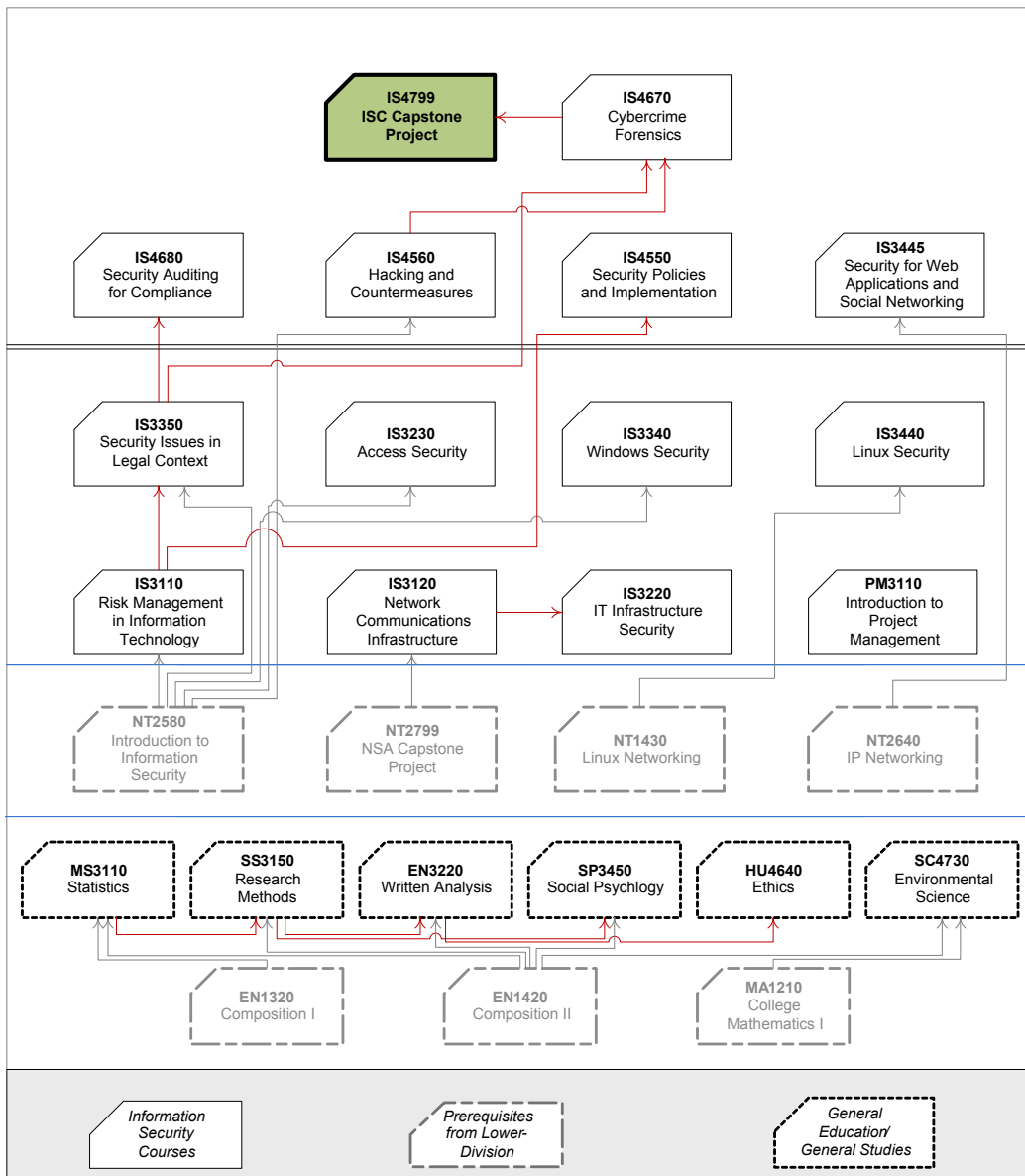
This course serves as a comprehensive assessment of knowledge and skills in information systems and cybersecurity. Activities include research into selected security problems and planning, designing and implementing security solutions for a user organization.

Where Does This Course Belong?

This course is required for the Bachelor of Science in Information Systems Security program. This program covers the following core areas:

- Foundational Courses
- Technical Courses
- BSISS Project

The following diagram demonstrates how this course fits in the program:



Course Summary

Major Instructional Areas

1. Request for Proposal (RFP) content and purpose
2. Survey of existing security controls
3. Analysis of security gaps
4. Design of approaches to address security gaps
5. Communicating proposed solutions through an RFP response

Course Objectives

1. Identify the objectives and detailed requirements of an Information Technology (IT) security services RFP
2. Explain the procedures of a vendor bidder's conference
3. Plan and perform a security compliance gap analysis
4. Assess the effectiveness of existing security controls
5. Conduct an enterprise-wide security assessment
6. Prepare a qualitative risk and security assessment report
7. Develop a plan to mitigate risks identified during the risk and security assessment
8. Identify Business Impact Analysis (BIA), Business Continuity Plan (BCP), and Disaster Recovery Plan (DRP) requirements that meet client's needs
9. Design a layered security solution to protect IT assets
10. Present a formal RFP response

Learning Materials and References

Required Resources

Textbook Package	New to this Course	Carried over from Previous Course(s)	Required for Subsequent Course(s)
IS4799 State Government RFP Document	■		
RFP Response Template Document	■		

* <http://www.library.itt-tech.edu>

Recommended Resources

Books, Professional Journals

Please use the following author's names, book/article titles and/or keywords to search in the ITT Tech Virtual Library for supplementary information to augment your learning in this subject:

Books

Books24X7

Hugo Barreca, et al

Business Owner's Guide to the Internet, 1st ed.

John Baschab, et al

The Professional Services Firm Bible

Timothy Giles

How to Develop and Implement a Security Master Plan

Tom Kendrick

The Project Management Tool Kit: 100 Tips and Techniques for Getting the Job Done Right, 2nd ed.

Gary S. Luefschuetz

Selling Professional Services to the Fortune 500: How to Win in the Billion-Dollar Market of Strategy Consulting, Technology Solutions, and Outsourcing Services

David G. Pugh, et al

Powerful Proposals: How to Give Your Business the Winning Edge

Professional Associations

- CERT

This Web site provides assistance in understanding and handling security vulnerabilities. It also provides research tools on long-term changes in networked systems and gives training assistance to improve security.

<http://www.cert.org/> (accessed April 26, 2010).

- ISACA

This Web site provides access to original research, practical education, career-enhancing certifications, industry-leading standards, and best practices. It also provides a network of like-minded colleagues and contains professional resources and technical/managerial publications.

<https://www.isaca.org/Pages/default.aspx> (accessed April 22, 2010).

- SANS: Computer Security Training, Network Research & Resources

This Web site provides information on computer security training through several delivery methods such as live and virtual conferences, mentors, and online and onsite instruction. It also provides certification and numerous free security resources.

<http://www.sans.org/> (accessed April 26, 2010).

NOTE: All links are subject to change without prior notice.

Keywords:

Bidder's conference

Business Continuity Plan (BCP)

Business Impact Analysis (BIA)

Disaster Response Plan (DRP)

Layered security

Multi-layered security

Professional services

Project management

Request for Proposal (RFP)

Risk assessment

Security assessment

Course Plan

Instructional Methods

This course is designed to promote learner-centered activities and support the development of cognitive strategies and competencies necessary for effective task performance and critical problem solving. The course utilizes individual and group learning activities, performance-driven assignments, problem-based cases, projects, and discussions. These methods focus on building engaging learning experiences conducive to development of critical knowledge and skills that can be effectively applied in professional contexts.

Suggested Learning Approach

In this course, you will be studying individually and within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.

Use the following advice to receive maximum learning benefits from your participation in this course:

DO	DON'T
<ul style="list-style-type: none"> ▪ Do take a proactive learning approach ▪ Do share your thoughts on critical issues and potential problem solutions ▪ Do plan your course work in advance ▪ Do explore a variety of learning resources in addition to the textbook ▪ Do offer relevant examples from your experience ▪ Do make an effort to understand different points of view ▪ Do connect concepts explored in this course to real-life professional situations and your own experiences 	<ul style="list-style-type: none"> ▪ Don't assume there is only one correct answer to a question ▪ Don't be afraid to share your perspective on the issues analyzed in the course ▪ Don't be negative towards the points of view that are different from yours ▪ Don't underestimate the impact of collaboration on your learning ▪ Don't limit your course experience to reading the textbook ▪ Don't postpone your work on the course deliverables – work on small assignment components every day

Special Instructions for Onsite Students

- You will be working in teams on creating an RFP response report for the project in this course. In the report, you must include a cover sheet using a predefined template. You will receive this template from your instructor.
- You must use the Teamwork Evaluation Form as part of the basis for evaluation of teamwork. You will receive this form at the beginning of the course. Use this form to evaluate your teammates' and your own performance on the capstone project. Your instructor will collect the completed form at the end of the course. Areas for evaluation will be:
 - Participation
 - Team organizational contributions
 - Interpersonal communication performance
 - Subject area expertise contributions

Information on this sheet will be used as part of the criteria to award the 5% of the total grade for each student.

Course Outline

Unit #	Unit Title	Assigned Readings	Graded Activities			
			Grading Category	#	Activity Title	Grade Allocation (% of all graded work)
1	Release of an RFP for Security Assessment Services		Project Technical Solution Part 3: Research	1.1	Review of Firm's Qualifications	4
			Project Technical Solution Part 6: Evaluation Design	1.2	Phased Project Approach and High-Level Project Plan Outline	1
			Project Technical Solution Part 4: Data Analysis	1.3	RFP Clarification Questions	2
			Technical Assessment Unit 1	1.4	Unit 1 Technical Assessment Questions	0.5
2	RFP Bidder's Conference		Project Technical Solution Part 3: Research	2.1	Review of Requirements and Clarification Questions	4
			Project Technical Solution Part 6: Evaluation Design	2.2	Project Plan Modifications Based on Clarifications Answered	1
			Project Technical Solution Part 2: Problem Statement	2.3	High-Level Description of Current Client's Need	10
			Technical Assessment Unit 2	2.4	Unit 2 Technical Assessment Questions	0.5
3	IT Security Policy Framework Gap Analysis		Project Technical Solution Part 4: Data Analysis	3.1	RFP Technical Requirements and Differences from Existing Controls	2
			Project Technical Solution Part 6: Evaluation Design	3.2	IT Security Compliance and Governance Gap Analysis Plan Outline	1
			Project Technical Solution Part 5: Solution Design	3.3	Benefits of Your Recommendations	2

Unit #	Unit Title	Assigned Readings	Graded Activities			
			Grading Category	#	Activity Title	Grade Allocation
						(% of all graded work)
			Technical Assessment Unit 3	3.4	Unit 3 Technical Assessment Questions	0.5
4	Security Controls for Privacy Data		Project Technical Solution Part 4: Data Analysis	4.1	Data Privacy Legal Requirements as per RFP's Compliance Requirements	2
			Project Technical Solution Part 6: Evaluation Design	4.2	Compliance Project Plan Definition	1
			Project Technical Solution Part 5: Solution Design	4.3	Data Privacy Security Gap Mitigation Actions as per RFP's Compliance Requirements	2
			Technical Assessment Unit 4	4.4	Unit 4 Technical Assessment Questions	0.5
5	Conducting a Security Assessment		Project Technical Solution Part 4: Data Analysis	5.1	Security Assessment Project Plan Definition	2
			Project Technical Solution Part 5: Solution Design	5.2	Procedure to Conduct a Security Assessment and Risk Identification	2
			Technical Assessment Unit 5	5.3	Unit 5 Technical Assessment Questions	0.5
6	Developing the Security Assessment Report		Project Technical Solution Part 4: Data Analysis	6.1	Risk Assessment Project Plan Definition	2
			Project Technical Solution Part 5: Solution Design	6.2	Data Security Mitigation Actions Based on Qualitative Risk Assessment	2
			Technical Assessment Unit 6	6.3	Unit 6 Technical Assessment Questions	0.5

Unit #	Unit Title	Assigned Readings	Graded Activities			
			Grading Category	#	Activity Title	Grade Allocation (% of all graded work)
7	Mitigating Identified Risks and Security Concerns		Project Technical Solution Part 4: Data Analysis	7.1	Risk Prioritization and Mitigation Project Plan Definition	2
			Project Technical Solution Part 5: Solution Design	7.2	Risk Mitigation Actions Based on Qualitative Risk Assessment's Risk Prioritization	2
			Technical Assessment Unit 7	7.3	Unit 7 Technical Assessment Questions	0.5
8	Identifying BCP, BIA, and DRP Requirements		Project Technical Solution Part 6: Evaluation Design	8.1	BCP Outline and Table of Contents as per BIA	1
			Project Technical Solution Part 6: Evaluation Design	8.2	DRP Outline Creation, Table of Contents, and Estimation of BIA Performance	1
			Technical Assessment Unit 8	8.3	Unit 8 Technical Assessment Questions	0.5
9	Layered Security Solutions		Project Technical Solution Part 5: Solution Design	9.1	Phased Project Approach and High-Level Project Plan Including Prioritized Security Controls	2
			Project Technical Solution Part 5: Solution Design	9.2	Layered Security Solution Response Report	2
			Project Technical Solution Part 1: Executive Summary	9.3	Layered Security Solution Executive Summary	9
			Technical Assessment Unit 9	9.4	Unit 9 Technical Assessment Questions	0.5

Unit #	Unit Title	Assigned Readings	Graded Activities			
			Grading Category	#	Activity Title	Grade Allocation (% of all graded work)
10	Vendor Presentations of Proposed Solution I		Project Presentation	10.1	Team RFP Response Presentation I	2
			Project Documentation	10.2	Team RFP Response Report Delivery I	2
			Oral Exam (Individual Skills Assessment)	10.3	Comprehensive Oral Exam I	12
			Technical Assessment Unit 10	10.4	Unit 10 Technical Assessment Questions	0.5
11	Vendor Presentations of Proposed Solution II		Project Teamwork	11.1	Teamwork Evaluation Form	4
			Project Presentation†	11.2	Team RFP Response Presentation II	2
			Project Documentation†	11.3	Team RFP Response Report Delivery II	2
			Oral Exam (Individual Skills Assessment)	11.4	Comprehensive Oral Exam II	12

† Candidate for the ePortfolio

Evaluation and Grading

IS4799 COURSE SNAPSHOT

Grading Category	Grade Book Category Weight (% of Course Total)	Unit	Activity/Graded Deliverable	Grade Allocation (% of Course Total)	Measuring Rubric (Gradebook Assignment Name)
A. Project Technical Solution Part 1: Executive Summary	9.00%	9	Unit 9. Assignment 3. Layered Security Solution Executive Summary	9.00%	A-Y2-2 Critical Thinking
B. Project Technical Solution Part 2: Problem Statement	10%	2	Unit 2. Assignment 3. High-Level Description of Current Client's Need	10%	B-Y2-1 Analyze Information
C. Project Technical Solution Part 3: Research	8.00%	1	Unit 1. Assignment 1. Review of Firm's Qualifications	4.00%	C-Y2-2 Critical Thinking
		2	Unit 2. Assignment 1. Review of Requirements and Clarification Questions	4.00%	C-2-1 Evaluate Technologies
D. Project Technical Solution Part 4: Data Analysis	12%	1	Unit 1. Assignment 3. RFP Clarification Questions	2.00%	D-1-1 Apply Standard and Regulations
		3	Unit 3. Assignment 1. RFP Technical Requirements and Differences from Existing Controls	2.00%	D-2-1 Evaluate Technologies
		4	Unit 4. Assignment 1. Data Privacy Legal Requirements as per RFP's Compliance Requirements	2.00%	D-1-1 Apply Standard and Regulations
		5	Unit 5. Assignment 1. Security Assessment Project Plan Definition	2.00%	D-1-1 Apply Standard and Regulations
		6	Unit 6. Assignment 1. Risk Assessment Project Plan Definition	2.00%	D-1-1 Apply Standard and Regulations
		7	Unit 7. Assignment 1. Risk Prioritization and Mitigation Project Plan Definition	2.00%	D-1-1 Apply Standard and Regulations
E. Project Technical Solution Part 5: Solution Design	14%	3	Unit 3. Assignment 3. Benefits of Your Recommendations	2.00%	E-3-1 Design Solutions
		4	Unit 4. Assignment 3. Data Privacy Security Gap Mitigation Actions as per RFP's Compliance Requirements	2.00%	E-4-1 System Configurations
		5	Unit 5. Assignment 2. Procedure to Conduct a Security Assessment and Risk Identification	2.00%	E-2-1 Evaluate Technologies
		6	Unit 6. Assignment 2. Data Security Mitigation Actions Based on Qualitative Risk Assessment	2.00%	E-4-1 System Configurations
		7	Unit 7. Assignment 2. Risk Mitigation Actions Based on Qualitative Risk Assessment's Risk Prioritization	2.00%	E-3-1 Design Solutions
		9	Unit 9. Assignment 1. Phased Project Approach and High-Level Project Plan Including Prioritized Security Controls	2.00%	E-3-1 Design Solutions

		9	Unit 9. Assignment 2. Layered Security Solution Response Report	2.00%	E-3-1 Design Solutions
F. Project Technical Solution Part 6: Evaluation Design	6.00%	1	Unit 1. Assignment 2. Phased Project Approach and High-Level Project Plan Outline	1.00%	F-2-1 Evaluate Technologies
		2	Unit 2. Assignment 2. Project Plan Modifications Based on Clarifications Answered	1.00%	F-3-1 Design Solutions
		3	Unit 3. Assignment 2. IT Security Compliance and Governance Gap Analysis Plan Outline	1.00%	F-1-1 Apply Standard and Regulations
		4	Unit 4. Assignment 2. Compliance Project Plan Definition	1.00%	F-1-1 Apply Standard and Regulations
		8	Unit 8. Assignment 1. BCP Outline and Table of Contents as per BIA	1.00%	F-2-1 Evaluate Technologies
		8	Unit 8. Assignment 2. DRP Outline Creation, Table of Contents, and Estimation of BIA Performance	1.00%	F-3-1 Design Solutions
G. Technical Assessment	5%	1	Unit 1. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		2	Unit 2. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		3	Unit 3. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		4	Unit 4. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		5	Unit 5. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		6	Unit 6. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		7	Unit 7. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		8	Unit 8. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		9	Unit 9. Technical Assessment Questions	0.50%	G-4-1 System Configurations
		10	Unit 10. Technical Assessment Questions	0.50%	G-4-1 System Configurations
H. Project Teamwork	4.00%	11	Teamwork Evaluation Form	4.00%	H-Y5-2 Teamwork
I. Project Documentation	4.00%	10	Unit 10. Team RFP Response Report Delivery I	2.00%	I-Y4-1 Communication
		11	Unit 11. Team RFP Response Report Delivery II	2.00%	I-Y4-2 Communication
J. Project Presentation	4.00%	10	Unit 10. Team RFP Response Presentation I	2.00%	J-Y4-1 Communication
		11	Unit 11. Team RFP Response Presentation II	2.00%	J-Y4-2 Communication
K. Oral Exam (Individual Skills Assessment)	24%	5-10	Oral Exam (Individual skills Assessment)	24%	
Total	100.00%			100.00%	

COURSE GRADING RUBRIC

IS4799—ISC Capstone Project

Campus: _____

Faculty Name: _____

Student Name: _____

Directions: Please assign a percentage grade on the line for each subcategory.

A. Project Technical Solution, Part 1: Executive Summary (9% of total grade)

Unit 9—Assignment 3

_____ A-Y2-2 Critical Thinking

- 90-100%: Applies critical thinking skills to thoroughly and accurately assess arguments, proposals and solutions and uses that evaluation to formulate a more effective thesis, argument, or research proposal.
- 80-89%: Applies critical thinking skills to thoroughly and accurately assess arguments, proposals and solutions.
- 70-79%: Applies critical thinking skills to thoroughly assess arguments, proposals and solutions.
- 60-69%: Applies critical thinking skills to assess arguments, proposals and solutions.
- Below 60%: Does not readily identify arguments, proposals and solutions within information sources.

B. Project Technical Solution, Part 2: Problem Statement (10% of total grade)

Unit 2—Assignment 3

_____ B-Y2-1 Analyze Information

- 90-100%: Thoroughly analyzes available source information independently. Accurately assesses the relevance of the data retrieved. Uses information sources that provide both clarity and depth for the research purpose.
- 80-89%: Uses tools to locate and organize source information independently, quickly and effectively, and accurately evaluates the data retrieved.
- 70-79%: Readily locates and organizes source information and evaluates the data retrieved.
- 60-69%: Locates and organizes source information in most cases and evaluates the data retrieved.
- Below 60%: Often needs help locating, organizing and evaluating source information.

C. Project Technical Solution, Part 3: Research (8% of total grade)

Unit 1—Assignment 1

_____ C-Y2-2 Critical Thinking

- 90-100%: Applies critical thinking skills to thoroughly and accurately assess arguments, proposals and solutions and uses that evaluation to formulate a more effective thesis, argument, or research proposal.
- 80-89%: Applies critical thinking skills to thoroughly and accurately assess arguments, proposals and solutions.

- 70-79%: Applies critical thinking skills to thoroughly assess arguments, proposals and solutions.
- 60-69%: Applies critical thinking skills to assess arguments, proposals and solutions.
- Below 60%: Does not readily identify arguments, proposals and solutions within information sources.

C. Project Technical Solution, Part 3—cont'd

Unit 2—Assignment 1

C-2-1 Evaluate Technologies:

- 90-100%: Analyze information security technologies and services by elaborating their engineering principles, specifications, purposes, functions, availability and cost factors by vendor or provider
- 80-89%: Explain information security technologies and services with adequate comparison and contrast by feature, capability, provider and cost factors in perspectives
- 70-79%: Explain commonly used information security technologies by describing their purposes, specifications, functions and availability by vendor or provider
- 60-69%: Describe commonly used information security technologies by major technical purposes and functions with some reference to their technical specifications and availability by vendor or provider
- Below 60%: Randomly list some technologies with inadequate description of their purposes and functions and little reference to their technical specifications and availability by vendor or provider


D. Project Technical Solution Part 4: Data Analysis (12% of total grade)

Unit 3—Assignment 1

D-2-1 Evaluate Technologies:

- 90-100%: Analyze information security technologies and services by elaborating their engineering principles, specifications, purposes, functions, availability and cost factors by vendor or provider
- 80-89%: Explain information security technologies and services with adequate comparison and contrast by feature, capability, provider and cost factors in perspectives
- 70-79%: Explain commonly used information security technologies by describing their purposes, specifications, functions and availability by vendor or provider
- 60-69%: Describe commonly used information security technologies by major technical purposes and functions with some reference to their technical specifications and availability by vendor or provider
- Below 60%: Randomly list some technologies with inadequate description of their purposes and functions and little reference to their technical specifications and availability by vendor or provider

D. Project Technical Solution Part 4: Data Analysis—cont'd

- _____ Unit 1, Assignment 3
 _____ Unit 4, Assignment 1
 _____ Unit 5, Assignment 1
 _____ Unit 6, Assignment 1
 _____ Unit 7, Assignment 1
- 
- Use the rubric below to assign grades for these five activities**

D-1-1 Apply Standard and Regulations

- 90-100%: Providing proactive solutions to information systems security problems with consistent outcomes based on systematic research and analysis regarding legal and regulatory framework as well as industry standards and practices that minimize the potential threats and damages
- 80-89%: Provide proactive solutions to information systems security problems based on required research on guiding legal and regulatory framework as well as industry standards and practices
- 70-79%: Solving information systems security problems by reactively following legal and regulatory guidance and industry standards; lack of proactive preventive analysis and measures
- 60-69%: Inconsistent implementation of solutions within the framework of legal, regulatory and industry standards in information systems security
- Below 60%: Unable to apply legal and regulatory framework and to follow industry standards and practices in solving information systems security problems

E. Project Technical Solution Part 5: Solution Design (14% of total grade)

- _____ Unit 3, Assignment 3
 _____ Unit 7, Assignment 2
 _____ Unit 9, Assignment 1
 _____ Unit 9, Assignment 2
- 
- Use the rubric below to assign grades for these 4 activities**

E-3-1 Design Solutions

- 90-100%: Develop information systems security solutions by using effective project management tools that incorporate project goals, milestones and resources with requirement analysis, business and technical systems designs, deployment and testing strategies and maintenance plans
- 80-89%: Develop information systems security solutions by evaluating and selecting optimal methods with well-documented user requirement analysis, business system design and technical system design, deployment and testing strategies and maintenance plans
- 70-79%: Develop information systems security solutions by following a documented process of needs analysis and through the design, development, deployment, testing and maintenance executions
- 60-69%: Develop information systems security solutions by following some process with some documented requirements analysis, design, deployment, testing and maintenance executions

- Below 60%: Develop information systems security solutions by following random or no methods without adequate requirements analysis and vague design, deployment, testing and maintenance plans

E. Project Technical Solution Part 5—cont'd

_____ Unit 4, Assignment 3

_____ Unit 6, Assignment 2

} Use the rubric below to assign grades for these 2 activities

E-4-1 System Configurations

- 90-100%: Successfully plan, install, configure, test, optimize and troubleshoot information security systems with well-documented performance and redundant capabilities
- 80-89%: Effectively plan, install, configure, test and optimize information security systems that provide anticipated specific protection and prevention to the information services
- 70-79%: Successfully install and configure information security systems based on requirements that establish and maintain protection to the information system and services
- 60-69%: Correctly install and bring up information security systems with positive testing results
- Below 60%: Randomly install information security systems with ineffective configurations that provides inconsistent protection to the infrastructure and services

E. Project Technical Solution Part 5—cont'd

Unit 5—Assignment 2

_____ ***E-2-1 Evaluate Technologies:***

- 90-100%: Analyze information security technologies and services by elaborating their engineering principles, specifications, purposes, functions, availability and cost factors by vendor or provider
- 80-89%: Explain information security technologies and services with adequate comparison and contrast by feature, capability, provider and cost factors in perspectives
- 70-79%: Explain commonly used information security technologies by describing their purposes, specifications, functions and availability by vendor or provider
- 60-69%: Describe commonly used information security technologies by major technical purposes and functions with some reference to their technical specifications and availability by vendor or provider
- Below 60%: Randomly list some technologies with inadequate description of their purposes and functions and little reference to their technical specifications and availability by vendor or provider

F. Project Technical Solution Part 6: Evaluation Design (14% of total grade)

_____ Unit 1, Assignment 2

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Use the rubric below to assign grades for these 2 activities

_____ **Unit 8, Assignment 1**

F-2-1 Evaluate Technologies

- 90-100%: Analyze information security technologies and services by elaborating their engineering principles, specifications, purposes, functions, availability and cost factors by vendor or provider
- 80-89%: Explain information security technologies and services with adequate comparison and contrast by feature, capability, provider and cost factors in perspectives
- 70-79%: Explain commonly used information security technologies by describing their purposes, specifications, functions and availability by vendor or provider
- 60-69%: Describe commonly used information security technologies by major technical purposes and functions with some reference to their technical specifications and availability by vendor or provider
- Below 60%: Randomly list some technologies with inadequate description of their purposes and functions and little reference to their technical specifications and availability by vendor or provider

F. Project Technical Solution Part 6—cont'd

_____ **Unit 2, Assignment 2**

_____ **Unit 8, Assignment 2**

Use the rubric below to assign grades for these 2 activities

F-3-1 Design Solutions

- 90-100%: Develop information systems security solutions by using effective project management tools that incorporate project goals, milestones and resources with requirement analysis, business and technical systems designs, deployment and testing strategies and maintenance plans
- 80-89%: Develop information systems security solutions by evaluating and selecting optimal methods with well-documented user requirement analysis, business system design and technical system design, deployment and testing strategies and maintenance plans
- 70-79%: Develop information systems security solutions by following a documented process of needs analysis and through the design, development, deployment, testing and maintenance executions
- 60-69%: Develop information systems security solutions by following some process with some documented requirements analysis, design, deployment, testing and maintenance executions
- Below 60%: Develop information systems security solutions by following random or no methods without adequate requirements analysis and vague design, deployment, testing and maintenance plans

F. Project Technical Solution Part 6—cont'd

_____ **Unit 3, Assignment 2**

Use the rubric below to assign grades for these 2 activities

_____ **Unit 4, Assignment 2**

F-1-1 Apply Standard and Regulations

- 90-100%: Providing proactive solutions to information systems security problems with consistent outcomes based on systematic research and analysis regarding legal and regulatory framework as well as industry standards and practices that minimize the potential threats and damages
- 80-89%: Provide proactive solutions to information systems security problems based on required research on guiding legal and regulatory framework as well as industry standards and practices
- 70-79%: Solving information systems security problems by reactively following legal and regulatory guidance and industry standards; lack of proactive preventive analysis and measures
- 60-69%: Inconsistent implementation of solutions within the framework of legal, regulatory and industry standards in information systems security
- Below 60%: Unable to apply legal and regulatory framework and to follow industry standards and practices in solving information systems security problems

G. Technical Assessment (5% of total grade)

_____ **Unit 1, Technical Assessment Questions**

_____ **Unit 2, Technical Assessment Questions**

_____ **Unit 3, Technical Assessment Questions**

_____ **Unit 4, Technical Assessment Questions**

_____ **Unit 5, Technical Assessment Questions**

assign

_____ **Unit 6, Technical Assessment Questions**

activities

_____ **Unit 7, Technical Assessment Questions**

_____ **Unit 8, Technical Assessment Questions**

_____ **Unit 9, Technical Assessment Questions**

_____ **Unit 10, Technical Assessment Questions**

Use the rubric below to assign grades for these activities

G-4-1 System Configurations

- 90-100%: Successfully plan, install, configure, test, optimize and troubleshoot information security systems with well-documented performance and redundant capabilities
- 80-89%: Effectively plan, install, configure, test and optimize information security systems that provide anticipated specific protection and prevention to the information services
- 70-79%: Successfully install and configure information security systems based on requirements that establish and maintain protection to the information system and services

- 60-69%: Correctly install and bring up information security systems with positive testing results
- Below 60%: Randomly install information security systems with ineffective configurations that provides inconsistent protection to the infrastructure and services

H. Project Teamwork (4% of total grade)

Unit 11—Teamwork Evaluation Form

_____ *A-Y5-2 Teamwork*

- 90-100%: Shows initiative and leadership in moving the team forward to complete projects.
- 80-89%: Contributes appropriate effort toward completion of a collaborative product and assists teammates as requested.
- 70-79%: Contributes appropriate effort toward completion of a collaborative product.
- 60-69%: Usually contributes effort toward completion of a collaborative product.
- Below 60%: Either underperforms by not contributing or over-performs by needlessly doing someone else's tasks in working toward completion of a collaborative product.

I. Project Documentation (4% of total grade)

Unit 10—Team RFP Response Report Delivery I

_____ *I-Y4-1 Communication*

- 90-100%: Readily identifies purpose and audience and accurately tailors communication accordingly. Assesses the risk of not communicating effectively and makes a strong and effective presentation as a result.
- 80-89%: Readily identifies purpose and audience and accurately tailors communication accordingly. Assesses the risk of not communicating effectively.
- 70-79%: Identifies purpose and audience and accurately tailors communication accordingly.
- 60-69%: Correctly identifies purpose and audience when reviewing or constructing a communication piece.
- Below 60%: Struggles to articulate purpose and identify audience when reviewing or constructing a communication piece.

I. Project Documentation—cont'd

Unit 11—Team RFP Response Report Delivery II

_____ *I-Y4-2 Communication*

- 90-100%: Produces a clear, concise, innovative and unified message, even when there are short deadlines.
- 80-89%: Produces a clear, concise and unified message, even when there are short deadlines.
- 70-79%: Produces a clear, concise and unified message.
- 60-69%: Usually produces a clear, concise and unified message.
- Below 60%: Produces a message that is hard to follow, excessively wordy or disjointed.

J. Project Presentation (4% of total grade)

Unit 10—Team RFP Response Report Presentation I

_____ J-Y4-1 Communication

- 90-100%: Readily identifies purpose and audience and accurately tailors communication accordingly. Assesses the risk of not communicating effectively and makes a strong and effective presentation as a result.
- 80-89%: Readily identifies purpose and audience and accurately tailors communication accordingly. Assesses the risk of not communicating effectively.
- 70-79%: Identifies purpose and audience and accurately tailors communication accordingly.
- 60-69%: Correctly identifies purpose and audience when reviewing or constructing a communication piece.
- Below 60%: Struggles to articulate purpose and identify audience when reviewing or constructing a communication piece.

J. Project Documentation—cont’d

Unit 11—Team RFP Response Report Presentation II

_____ J-Y4-2 Communication

- 90-100%: Produces a clear, concise, innovative and unified message, even when there are short deadlines.
- 80-89%: Produces a clear, concise and unified message, even when there are short deadlines.
- 70-79%: Produces a clear, concise and unified message.
- 60-69%: Usually produces a clear, concise and unified message.
- Below 60%: Produces a message that is hard to follow, excessively wordy or disjointed.

K. Oral Exam (Individual Skills Assessment) (24% of total grade)

_____ Individual Skills Assessment

Individual Skills Assessment Scoring Table

Levels of Knowledge	Number of topics Satisfied	Number of topics failed	Points Earned	Points earned
Synthesis/Evaluation			1	() x 1.0 = _____
Application/Analyses			0.8	() x 0.8 = _____
Knowledge/Comprehension			0.6	() x 0.6 = _____
Total Points Earned				

Divide Total Points Earned by 15 (maximum number of points that can be earned), then multiply by 100 and enter the resulting percentage value in this box. This resulting value is to be copied to the Individual Skills Assessment section of the Grade Book	
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For example, the student satisfied 5 questions at the top level, 5 questions at the middle level, 4 questions at the lowest level, and failed to address 1 question (total of 15 questions), this is what he/she gets:

$$\begin{aligned}
 5 \times 1 &= 5 \\
 5 \times 0.8 &= 4 \\
 4 \times 0.6 &= 2.4 \\
 1 \times 0 &= 0 \\
 5 + 4 + 2.4 + 0 &= 11.4 \text{ Total Points Earned}
 \end{aligned}$$

$$(11.4 \div 15) \times 100 = \mathbf{76.0}$$

Enter this number on the previous page and in the Skills Assessment section of the Grade Book for this student.

Evaluation Criteria

The graded assignments will be evaluated using the following weighted categories:

Category	Weight
Capstone Project	
Project Technical Solution & Technical Assessment Question	5%
Part 1: Executive Summary	9%
Part 2: Problem Statement	10%
Part 3: Research	8%
Part 4: Data Analysis	12%
Part 5: Solution Design	14%
Part 6: Evaluation Design	6%
Project Documentation	4%
Project Teamwork	4%
Project Presentation	4%
Oral Exam (Individual Skills Assessment)	24%
TOTAL	100%

Grade Conversion

The final grades will be calculated from the percentages earned in the course, as follows:

Grade	Percentage	Credit
A	90–100%	4.0
B+	85–89%	3.5
B	80–84%	3.0
C+	75–79%	2.5
C	70–74%	2.0

D+	65–69%	1.5
D	60–64%	1.0
F	<60%	0.0

Academic Integrity

All students must comply with the policies that regulate all forms of academic dishonesty, or academic misconduct, including plagiarism, self-plagiarism, fabrication, deception, cheating, and sabotage. For more information on the academic honesty policies, refer to the Student Handbook.

(End of Syllabus)