CSCE/CYBR 201 Syllabus

Course Information

Course Number:	CSCE 201
Course Title:	Fundamentals of Cybersecurity
Section:	700
Time:	Asynchronous
Credit Hours:	3

Instructor Details

Instructor: Dr. Philip Ritchey

Course Description

Basic terminology, concepts, technology, and trends of cybersecurity; foundations of cybersecurity to include cryptography, public key infrastructure, standards and protocols, physical security, network fundamentals; workings of systems, networks, infrastructure; legal and ethical issues in cybersecurity.

Course Prerequisites

None.

Course Learning Outcomes

By the end of this course, the students should be able to:

- Describe the common body of knowledge in cybersecurity to include terminology, tools, concepts, and techniques.
- Apply cybersecurity concepts of securing networks, wireless communication, web component security, software security, and physical security.
- Demonstrate the ability to use cybersecurity fundamentals to make decisions regarding how to secure systems.

Textbook and/or Resource Materials

Principles of Computer Security, 5th edition, Conklin and White. ISBN 978-1-260-02601-6

Course Schedule

5-week summer session schedule.

WEEK	TOPICS	ACTIVITES, ASSIGNMENTS, ASSESSMENTS
1	Introduction and Security Trends	Read Chapter 1
	General Security Concepts	Read Chapter 2
	The Role of People in Security	Read Chapter 4
	Types of Attacks and Malicious Software	Read Chapter 15
		Lab Project, Quizzes
2	Cryptography	Read Chapter 5
	Applied Cryptography	Read Chapter 6
	Public Key Infrastructure	Read Chapter 7
		Lab Project, Quizzes
3	Physical Security	Read Chapter 8
	Network Fundamentals	Read Chapter 9
	Infrastructure Security	Read Chapter 10
	Authentication and Remote Access	Read Chapter 11
		Lab Project, Quizzes
4	Operational and Organizational Security	Read Chapter 3
	Business Continuity, Disaster Recovery, and Organizational Policies	Read Chapter 19
	Risk Management	Read Chapter 20
	Change Management	Read Chapter 21
	Incident Response	Read Chapter 22
		Lab Project, Quizzes
5	Legal Issues and Ethics	Read Chapter 24
	Privacy	Read Chapter 25
	Special Topics, e.g. Wireless Security and Mobile Devices, Intrusion Detection Systems and Network Security, System Hardening and Baselines, E-Mail and Instant Messaging, Web Components, Secure Software Development, Computer Forensics	Read Chapter(s) {12,13,14,16,17,18,23}
		Lab Project, Quizzes