



## Grossmont-Cuyamaca Community College District Articulation Agreement

Course to be Articulated:	Credits	College Course	Units
Cybersecurity	10.0	CSIS 121 Introduction to Cybersecurity	3.0
School/Institution Name: El Capitan High School		College: Grossmont College	

### Course Prerequisites

None.

### Recommended Preparation

None.

### College Course Description

Practical introductory course intended for those interested in learning about cybersecurity. Lectures, laboratories, and practical assignments will emphasize skills needed to work effectively in the area of cybersecurity. Some topics include: Internet security basics, hackers, spyware, phishing, spam, zombies, Trojan horses, worms, viruses, wi-fi security, denial-of-service, web-blocking, firewalls, and proxy servers, operating system security, browser and web security, and cryptography. Includes installation and configuration of security tools and utilities.

### Required Content for Articulation

1. TCP/IP
2. Client/server model
3. Basic networking protocols
4. How hackers invade PCs and networks
5. spyware and anti-spyware
6. phishing and spam
7. zombies and Trojan horses

8. worms, viruses, and malware
9. Wi-Fi security threats
10. denial-of-service threats
11. firewalls and proxy servers
12. Operating Systems Security
13. Browser and Web Security
14. Cryptography

### **Required Competencies (SLOs) for Articulation**

Upon completion of this course, our students will be able to do the following:

1. Recognize signs of typical Cybersecurity breaches in order to be able to define the issues and challenges in addressing them.
2. Apply best practices in problem analysis needed to implement effective and efficient Cybersecurity solutions.
3. Demonstrate the capability to implement an appropriate solution to solve the Cybersecurity challenge.

### **Assessment Methods**

*A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration, or, where appropriate, the symbol system.*

1. Quizzes and exams that measure students' ability to use cybersecurity terminology and to explain cybersecurity concepts.
2. Practical exams that measure students' ability to use cybersecurity knowledge and skills to demonstrate proficiency in cybersecurity components.
3. Projects that measure students' ability to conceptualize and apply cybersecurity concepts.
4. Exercises that measure students' ability to identify cybersecurity concerns and to address those concerns with practical solutions.

**RUBRIC:** Attached (if applicable)

### **Texts and other supporting materials (software, etc.)**

Required Textbook(s): Conklin, W. and White, G., Principles of Computer Security, Fourth Edition (Official Comptia Guide) 4th Edition, McGraw-Hill, 2016, New York, NY. ISBN-13: 978-0071835978

**Criteria for Course Articulation**

- 1. School instructors and college teachers attend articulation meetings to determine curriculum alignment and articulation competency rubric.
- 2. Student must pass high school course with a grade of "B" or better and have mastered course competencies as identified in the articulation competency rubric.

Articulation meeting held: November 17, 2020

Effective date: Fall 2020

Expiration date: December 01, 2023

**School or Institution/CTE/Signatures**

[Signature] 8/11/21  
 Teacher Date

Shelby Crossin  
 Teacher (print name)

[Signature] 8/11/21  
 Principal Date

El Capitan High School  
 School/Institution

**College Signatures**

Grossmont  
 Cuyamaca

[Signature] 4/21/21  
 Department Lead, Grossmont College Date

Clifton Quinn  
 Department Lead (print name)

Dr. Javier Ayala 4/28/2021  
 Date

Dean of CTE, Grossmont College

Dr. Javier Ayala

Dean of CTE (print name)

**Additional Instructors**

\_\_\_\_\_  
 Teacher Date

\_\_\_\_\_  
 Teacher (print name)

\_\_\_\_\_  
 Teacher Date

\_\_\_\_\_  
 Teacher (print name)

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