Cybersecurity
Course Syllabus
2026 - 2027

Lexington High School
Instructor: Mr. Marlon Leiva
e-mail: marlon.leiva@lexschools.org
Phone: (308) 324-4691 ext. 2901

Student's Name: _____

Class Purpose

Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Students will solve problems by understanding and closing these vulnerabilities. This course raises student's knowledge of and commitment to ethical computing behavior. (State: Cybersecurity, 270707)

This class plan aims to introduce students to the world of cybersecurity, covering topics such as ethical hacking. Through hands-on, collaborative activities, students will learn to promote digital security in their use of ICT, design an information-hacking, and create a cybersecurity workshop focused on preventing online risks.

The class is also a great opportunity to learn, strengthen and apply knowledge in the following areas:

- Digital security
- Ethical hacking
- Engineering
- Collaborative activities
- Problem solving
- Tool use - common and no common tools
- Hacking simulators
- Communication skills

Objectives

1. Promote digital security in the use of ICTs across various devices.
2. Threats you will encounter on the Internet and measures to mitigate them
3. Concepts such as hackers, malware, worms, Trojans, and computer viruses—and their various types
4. Different social engineering techniques
5. Best practices for managing your passwords
6. Practical tips for improving your computer security

Learning Modules

1. Introduction to Cybersecurity
2. Attacks, concepts, and techniques
3. Protecting your data and your privacy
4. Protecting the organization
5. Data Policy and Privacy
6. The value of Privacy
7. Encryption Caesar Cipher
8. Key concepts in encryptions
9. Behavior approach cybersecurity
10. Internet Network Security
11. Security Network and Protocols
12. Perimeter security
13. Wireless security
14. Server and client environments
15. Access management
16. Endpoint Protection
17. Malware Analysis and Types of Attacks
18. Ethical Hacking and Vulnerability Assessment
19. Security Operations (SOC) and Incident Response
20. Governance, Risk, and Compliance (GRC) and the Cloud
21. Will your future be related to cybersecurity?

Resources

Code Course (Code.org) / Other printed materials

Grading

Tests (**40%**) + Quizzes (**30%**) + Projects (**20%**) + Homework/Activities (**10%**) = **100%**

Quarter 1 (**45%**) + Quarter 2 (**45%**) + Semester Final (**10%**) = **100%**

Late Work

All assignments have a due date. I expect all work to be turned in on time.
20 points will be deducted for every day it is late. After 4 days it will be counted as a "0%"

Misconduct

Misbehavior in class, failure to participate, or refusal to work on class activities will be penalized in accordance with school regulations and may result in a reduction of grades. Please note that improper use of the equipment may result in damage, requiring the student to replace the equipment or cover its cost.

Classroom Expectations and Procedures:

- Come to class prepared (Charged chromebook, pencil, paper, etc.)
- Respect one another
- Listen wholeheartedly when others are speaking
- Speak with good purpose
- Be accountable for your actions
- Learn from failure
- Use only the equipment assigned to you

Beginning of Class:

- Place phones in backpack (No tolerance policy)
- Find your seat, take out supplies needed for class (CHARGED COMPUTER, pencil, etc.)
- When finished, sit quietly and wait for further instructions

During class:

- Actively participate in class
- Keep order
- Be respectful

End of Class:

- Clean up your area (paper on floor around you, your supplies, put extension cords away, etc.)
- Sit IN seat until the bell rings. DO NOT LINE UP AT THE DOOR!!!!
- Push in your chair and leave the room quietly

I acknowledge the course content to be covered in my child's class: _____, and I clearly understand how the assessment will be conducted. I commit to helping my child study and encouraging them to do their best to achieve excellent results in the class.

_____

Signature of parent or guardian

Lexington, August 2026