



Cybersecurity Capstone

Nicholas Manning

Email: nicholas_p_manning@mcpsmd.org

What is the Cybersecurity Capstone Course?

This course is designed to prepare students for a challenging and rewarding career in the Cybersecurity industry. The course curriculum is based on Cisco Networking Academy and CompTIA national models and includes opportunities for challenging industry credentials. Students will master a variety of Cybersecurity skills by applying knowledge through their participation in actual and virtual exercises including preparation for Cybersecurity competitions as well as the CompTIA Security+ certification exam. In addition, this program has articulation agreements with Montgomery College. For students who earn a B grade or better, up to twelve credits may be transferred to Montgomery College's Computer Science Track, Computer Science and Technologies AA:107; Information Systems Track, or Computer Science and Technologies AA: 109.

The following describes the scope and sequence of instruction for the Cybersecurity Capstone Course:

Semester 1	Unit(s)
<i>Introduction to Cybersecurity</i>	The Need for Cybersecurity
	Attacks, Concepts, and Techniques
	Protecting Your Data and Privacy
	Protecting the Organization
	Will Your Future Be in Cybersecurity
<i>Cybersecurity Essentials</i>	Cybersecurity – A World of Wizards, Heroes and Criminals
	The Cybersecurity Sorcery Cube
	Cybersecurity Threats, Vulnerabilities and Attacks
	The Art of Protecting Secrets

Semester 2	Unit(s)
<i>Cybersecurity Essentials, continued</i>	The Art of Ensuring Integrity
	The Realm of Five Nines
	Fortifying the Kingdom
	Joining the Order of Cyber Heroes
<i>Cyber Patriot</i>	Cyber Patriot Activities
<i>CompTIA Security+</i>	CompTIA Security+ Certification Exam Preparation

CompTIA Security+ Exam covers the following domains:

- 1.0 Threats, Attacks and Vulnerabilities
- 2.0 Technologies and Tools
- 3.0 Architecture and Design
- 4.0 Identity and Access Management
- 5.0 Risk Management
- 6.0 Cryptography and Public Key Infrastructure

Hands-on/Practical Experience:

- Career preparation/Employability Skills
- Vulnerability Testing
- Penetration Testing
- Cisco Packet Tracer
- Nessus Vulnerability Scanner
- Metasploit

What should I bring to class?

- ⇒ Pen and/or pencil
- ⇒ Spiral notebook
- ⇒ YOUR BEST EFFORT EVERYDAY!!!

How will I be graded in the Cybersecurity Essentials Course?

Grade Percentage	Description
10% Homework	A Cybersecurity article of the week will be due every Friday. In addition, assignments will be given to reinforce knowledge gained throughout the week.
60% Classwork/labs	Students will complete classwork both paper based and through the use of Cisco training.
30% Assessments	Students will be assessed on their ability to assimilate and interpret information based on the Cisco training, as well as information presented during class.

- Assignments turned in past the **due date** will be marked down one letter grade.
- Students will receive 50% of the total points as the lowest grade, with the exception of cheating, plagiarism, or unsubmitted work, which will be marked as zeros.
- **Beware:** work missed as result of an unexcused absence may result in a zero. YOU MUST HAVE An EXCUSED SLIP TO MAKE-UP MISSED WORK.
- An assignment will be worth 50% after its **deadline**. Deadlines will vary depending on the significance of the assignment. I will, however, keep you informed of each assignment deadline.
- You will also have the opportunity to retake some assessments. I will keep you informed of which assignments can be reassessed.
- All grades will reflect student performance.

Attendance Policy

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- Due to the extended duration of this course (each class period is equal to three (3) class periods), it is important that students attend class on a daily basis and are prepared to make up work due to absences.
- Notes for absences are due within three days upon return to school.
- Notes received after three days will not be excused without administrative approval.
- Students are responsible for submitting these notes to the attendance office.
- Edison requires a separate note from any given to a student's home school.
- It is the student's responsibility to provide documentation of any home school required absences to the Edison attendance office.

What behavior is expected in the Cybersurity Capstone course?

- ⇒ You will work independently and cooperatively at all times.
- ⇒ When appropriate, you must wear a proper uniform.
- ⇒ You will keep the floor clean and the desks/equipment straight.
- ⇒ You will use the computers for educational purposes only.

What are my rules?

1. Respect yourself and others.
2. Walk quietly through the halls, without touching each other.
3. No hats.
4. Raise hand.
5. Use cells phones at appropriate times.
6. You may only eat and drink in class at appropriate times and places.

Textbooks/Course Material

- CompTIA Security+ SY0-501 Cert Guide : Academic Edition (Available in Class)
- Cisco Networking Academy-All students will have access to this online account!

By signing the line below, I agree that I will follow all of the rules and procedures as part of the Cybersecurity Capstone course.

Printed Student Name _____

Student Signature _____

Date _____

Parent/Guardian Printed Name_____

Parent/Guardian Signature_____

Date_____