



## ***FOUNDATIONS OF INFORMATION SECURITY (CYBERSECURITY I)***

Teacher Name: Bill McIlwain

Teacher E-mail: wemcilwain@madisoncity.k12.al.us

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### ***Course Description:***

This PLTW course provides students with a broad exposure to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. It inspires algorithmic and computational thinking, especially “outside-the-box” thinking. Students will also explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security.

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### ***Course Objectives:***

The students will master informational technology fundamentals such as an understanding and application of personal cybersecurity, system security, network security, and applied cybersecurity. In addition, the course will help prepare the student to pursue the Security + certification exam.

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### ***Classroom Expectations:***

You are expected to conduct yourself in a respectful and productive manner. In addition to all the rules and expectations listed in the student handbook, I expect you to have a positive attitude, treat others with respect, practice self-discipline, and demonstrate responsibility. If these conditions are not met, you can expect one-on-one meetings with me, parent/instructor conferencing, and administrative action, if necessary.

#### **Concerning the use of cell phones and other electronic devices:**

Devices should be on silent and kept in your purse, backpack, or pocket during class unless otherwise instructed. You may not place it on your desk. Parents, guardians, and other family members should call the front office in case of emergency.

If you violate this rule, you can expect the following consequences:

- *First offense* – The phone or device will be placed in a phone chart at the front of the room. You may pick it up at the end of class.
  - *Second offense* – The phone or device will again be placed in a phone chart at the front of the room until the end of class and a parent/guardian will be notified.
  - *Third offense* – This is defiance and I will notify an administrator.
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### ***Grading Policy:***

Major assessments will count 70 percent of your grade. Homework and classwork will account for 30 percent of your grade. Grades will be updated weekly in PowerSchools. Each grading period will consist of nine weeks.

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### ***Make-up Work Policy:***

Make-up tests will **only** be given to a student who has an **excused absence**. **The student must make arrangements with the teacher to take a make-up test. Tests may be taken during Patriot Path with prior arrangement from each teacher.** A student only has two chances (the next two Patriot Paths after the absence) to make up a test. All make-up tests will be administered in the designated classroom on the Patriot Path session roster.



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Homework/Classwork: Students who are absent for **excused reasons** will be permitted to make up missed work. **It is the student's responsibility to get their work assignments the day upon return to school and complete the assignments according to a time frame determined by the teacher within two weeks of the date of the last absence.** Grades of zero will be assigned for assignments missed because of unexcused absences.

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***Text and Other  
Required Reading:***

TestOut.com online training; Security Pro

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***Materials and  
Supplies Needed:***

Laptop  
Note taking is strongly encouraged!  
\*Other materials for Cybersecurity curriculum will be added on an as needed basis.

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***Laptops***

Concerning laptop utilization: 1. Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

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***Turnitin Notice***

The majority of writing assignments in this course will be submitted to Turnitin via the Schoology learning platform. Turnitin generates a report on the originality of student writing by comparing it with a database of periodicals, books, online content, student papers, and other published work. This program will help students discern when they are using sources fairly, citing properly, and paraphrasing effectively - skills essential to all academic work.

Students will have the opportunity to review their Turnitin originality report and will have the opportunity to make revisions before submitting their work for grading. Once their work is submitted, teachers have the opportunity to view the student/s originality report and grade accordingly.

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Requests for accommodations for this course or any school event are welcomed from students and parents.

***Accommodations***



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<b>18 - TENTATIVE WEEK PLAN*</b>	
<b>Week 1</b>	<b>Unit 1: Introduction to Cybersecurity</b>
<b>Week 2</b>	What is Cybersecurity?
<b>Week 3</b>	Unit 2: Digital Citizenship and Cyber Hygiene
<b>Week 4</b>	Unit 3: PROJECT: PUBLIC SERVICE ANNOUNCEMENT
<b>Week 5</b>	<b>Unit 4: Programming Fundamentals</b>
<b>Week 6</b>	<b>Unit 4: Programming Fundamentals</b>
<b>Week 7</b>	Unit 5: The ABC's of Cryptography
<b>Week 8</b>	Unit 6: PROJECT: CLASS CIPHER NEWSCAST
<b>Week 9</b>	<b>Unit 7: System Administration</b>
<b>Week 10</b>	Unit 7: System Administration
<b>Week 11</b>	Unit 8: Software Security
<b>Week 12</b>	Unit 8: Software Security
<b>Week 13</b>	Unit 8: Software Security
<b>Week 14</b>	Unit 9: PROJECT: SECURITY ASSESSMENT REPORT Unit 10: Networking Fundamentals
<b>Week 15</b>	Unit 10: Networking Fundamentals



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<b>Week 16</b>	Unit 11: Infrastructure
<b>Week 17</b>	Unit 12: FINAL PROJECT: TROUBLESHOOTING
<b>Week 18</b>	<b>Review and Finals</b>

**\*This is a tentative plan and may change at the discretion of the teacher.**

**Please sign below to acknowledge that you have received, read, and understood the syllabus.**

**Student name:** \_\_\_\_\_

Student signature: \_\_\_\_\_

**Parent/guardian name:** \_\_\_\_\_

Parent/guardian signature: \_\_\_\_\_

**Parent/guardian, please provide two ways for me to contact you (email address, phone numbers):**

Parent/guardian Email:

\_\_\_\_\_

Parent/Guardian Phone number:

\_\_\_\_\_