



Stillman College
School of Business
CIT 302 – Cybersecurity Landscape & Cyber Resilience

General Class and Course Information

Course number: CIT 302

Section: TBD

Term: TBD

Course title: Cybersecurity Landscape (CSL) & Cyber Resilience (CSR)

Credit hours: 3

Prerequisite: ENG 131, MAT 131, BUS 231

Professor's Contact Information

Professor's Name: Maria C. Laurent-Rice

Office Location: TBD

Telephone: (469)826-4009

Email address: mlaurentrice@stillman.edu

Email/Phone Response Time: at least 24 hours

Home Page:

Office Hours: via phone upon request via email

Course Description: This course prepares students to understand the body of technologies, processes and practices designed to protect networks, computers, programs, and data from attack, damage or unauthorized access. Cybersecurity landscape is a collection of best practices, technologies, frameworks, and standards to protect an enterprise, organization, government entity, individual user from global cyber threats. This course also teaches the student to understand the concept of cyber resilience. Cyber resilience is an evolving perspective that is rapidly gaining recognition. The concept essentially brings the areas of information security, business continuity and resilience together. Entities with potential need of cyber resilience abilities include, but are not limited to IT systems, critical infrastructure, business processes, organizations, societies and nation-states.

Course Level Student Learning Outcomes (SLOs): As a result of taking this course, the student will be able to

- Explain Cybersecurity in the world today
- Utilize search engines to locate information about cyber threats
- Utilize IBM software to detects cyber attack
- Explain cyber threats taxonomy- attack types
- Explain physical access, brute force, misconfiguration, malvertising, watering hole, phishing, SQL injection, DDos - Denial of Service, Malware, Undisclosed
- Explain Cybersecurity Domains
- Explain Cyber-attacks on corporations and industries
- Explain What is cyber resilience?
 - a. Why is cyber resilience needed?
- Utilize Cybersecurity Industry Challenges
- Explain Cyber Resilience Frameworks
- Explain IBM Cyber Resilience Lifecycle and Risk management Disciplines

Course Learning Objectives: The objectives of this course are to:

- Understand the current impact of cybersecurity threats
- Research global cybersecurity trends in different geographies
- Familiarize with the taxonomy of cyber attacks
- Explore the enterprise cybersecurity domains
- Explore the most frequently targeted industry sectors including: Government, Energy and Utilities, Retail and Telecom
- Explore the cyber resilience framework
- Understand the cyber resilience lifecycle
- Familiarize with Dark web

Full Course Outline: Click on the following link:

<https://stillman.edu/wp-content/uploads/2019/08/2019-2020-Stillman-College-Catalog.pdf>

Class Schedule: Online

Class: CIT 100 – Cybersecurity Landscape (CSL) & Cyber Resilience (CSR)

Textbook(s) Information: From CIA to APT: An Introduction to Cyber Security by Edward G. Amoroso and Matthew E. Amoroso (Free on Kindle) ISBN:978-1-5220-7494-6 or ISBN 10: 1522074945 / ISBN 13: 9781522074946

https://www.amazon.com/CIA-APT-Introduction-Cyber-Security-ebook/dp/B074Q5H6Z2/ref=sr_1_1?crid=1EFEXEOMR01WD&keywords=from+cia+to+apt&qid=1585006819&s=books&sprefix=from+CIA%2Cstripbooks%2C244&sr=1-1&swrs=A863944B709E9FB556693E8COE1065AB

Methods of Instruction:

1. Lectures: Important material from the text and outside sources will be posted online. Students should plan to take careful notes as not all material can be found in the texts or readings. Discussion is encouraged as is student-procured outside material relevant to topics being covered.
2. Lab/Hands-on Exercises: End of Module activities and online activities will be assigned to reinforce covered material. These assignments may require the application of various software packages.
3. Projects Textbook Exercises: All assignments will be posted in the syllabus to help ensure students keep up with assigned material.
4. IBM Exam and Practice Exams will be administered online. The exams will be to reinforce assigned readings and assignments. The
5. Final exam may be comprehensive in nature.

Unique Requirements of the Class: In-class and online

Course Evaluation Methods:

Grading Scale and Policy:

A=100%-90%

B=89%-80%

C=79%-70%

D=69%-60%

F=59%-0%

Objective: •Exams: Review, Practice •Hands-on Exercises •Lab/Hands-on Exercises •Discussions

20%---Exam: Word, Excel, Access, PowerPoint

10%---Projects/Group/Individual

30%---Quizzes Exam Practice

20%-- Reading/Videos, Lab/Hands-on Exercises

20%--Online Discussions/Participation/Attendance

No Incomplete or WX (Withdrawn for excessive absences) grades will be issued without a valid, written medical excuse.

Late Assignment Policy: See Exams/Projects/Quizzes/Lab schedule due dates in the course outline.

Late assignments such as labs, projects, lab exercises are based on percentage and are as follows:

Any missing assignment deadlines will result in a penalty of 20% of the maximum points for that assignment for each week that it is late; however, late work is always accepted.

*** Final Exam, Exams, and Midterms are excluded ***

Make-up Exam Policy: Prior approval of Instructor only. See Exam/Lab/Projects schedule due dates. There will be **NO make-up** exam except under extreme extenuating circumstances that must be documented.

Class Requirements:

Assignments- all assignments (Exams, Projects, Labs, etc...) must be completed using a computer with Microsoft Word and/or other software used in class or lab, and must be submitted online. The use of Stillman student's account allows you to upload assignments and download materials such as lectures, assignments schedules and others (See Lab/Project/Exam Schedule (Due Dates). Prior approval of professor for any changes is required.

The syllabus and course assignments are subject to change by the instructor as needed. Any changes to this syllabus will be posted online.

Material Requirements: Textbook, Computer and Software

Have access to a modern laptop with a windows or Mac operating system with internet connectivity is clearly a requirement and/or use campus computers in the labs. Software to be used in the course includes:

- MS Office 365 software to present and discuss problems and solutions. A standard suite of "Office-like" software will likely already be installed on your system.

Computer Accounts Required:

1. Stillman Account: This account allows you to access the software in the Computer Science Labs (BUS Building). These are fully networked labs running Windows.
2. Stillman/email or Canvas account: All of my communications to you will be sent via your preferred e-mail. Make sure the email stored is the one you want me to use for your class communications.

Class Lab Tools/Specifications:**Technical Requirements:** Hardware, Software, and Email Accounts (Stillman, gmail)

- A computer with Internet access. You may use your home computer or the computers in the Geneva Hall or Wynn Center labs
- Available software programs use in the lab. Contact Helpdesk for help with technical problems.

helpdesk@stillman.edu

Hardware

This course requires a personal computer.

Operating Systems:

- Mac – This course has been successfully tested using Mojave.
- Windows – This course has been successfully tested using Windows 10.

Web Browser:

- Mozilla Firefox, Google Chrome – All labs have been tested successfully using Firefox.

Software Installed Locally:

- Zenmap • Wireshark • PuTTY • Mozilla Firefox

Tools accessed through Web Browser:

- IBM X-Force Exchange

Software accessed through IBM Cloud:

- QRadar
 - o QRadar Vulnerability Manager
 - o Watson User Behavior Analytics
 - o i2 Analyst's Notebook

Class Policies and Methodology:

Attendance: Professors are required to take attendance. Initial discussion post due by Monday of each week in the discussion forum.

Electronic Device Use: Cell phones, PC, Tablet, Desktop, etc...

Email Policy: The professor will communicate with the students via email and in class. In some cases, test information or information about work due will be communicated via email so it is imperative to check your email regularly.

Equipment and Supplies: Students may need a storage device such as a USB flash drive as a back-up on which to save tutorials, labs, and any assignments or projects generated in or outside the class

Professor's Expectations: Students must complete all assignments in order to receive a grade. Students will be expected to put in at least 5 additional hours per week to complete required assignments.

University Policies and Web Information:**Academic Dishonesty**

Academic dishonesty is the intentional misrepresentation of all or part of one's work to deceive for personal gain or assisting another to do the same. Academic dishonesty includes, but is not limited to, cheating, plagiarism, fabrication, and/or submission of work, via written or electronic means, all or any part of which was developed in response to the assignment of an instructor.

Consequences for Academic Dishonesty: Consequences for Academic Dishonesty: Action(s): Automatic "F" on assignment, course or possible expulsion from the institution. Please refer to Stillman College Student Handbook:

<https://stillman.edu/wp-content/uploads/2019/02/Student-Handbook-2018-2019-final.pdf>

Computer Competency Component: Each student will, to the satisfaction of the professor, demonstrate a fundamental understanding of basic computer operations through various professor-determined exercises and/or assignments.

Disability Support Services: Students with disabilities are advised, in compliance with federal and state laws, that accommodations and services are available through the office of American Disability Act (ADA). It is the student's responsibility to contact Disabled Student Services Advisors and to submit appropriate documentation prior to receiving services. For accommodations due to a disability, please contact the instructor within the first week of class. In addition, please see the website at:

<https://stillman.edu/about-us/help/>

Student Responsibility Policy: When a student attends the University, s/he becomes subject to its jurisdiction. Students are expected to conduct themselves in a responsible manner, in all areas of campus life. By enrolling, they pledge to obey the rules and regulations of the University and are responsible for observing all University policies and procedures as published in the student handbook, the University catalog and other University publications. The student will be responsible for preparing for class and completing assignments on time.

Please refer to Stillman College Student Handbook:

<https://stillman.edu/wp-content/uploads/2019/02/Student-Handbook-2018-2019-final.pdf>

Withdrawal Policy for Individual Courses: The Business Department will adhere to the University policy stated in the Schedule of Classes. It is the student's responsibility to add/drop a class. Please visit the following website:

<https://stillman.edu/programs/academic-calendar/>

Important Contact Information:

helpdesk@stillman.edu Help with technical problems in Business computer labs.

Department Contact Information

Department Contact Name: Dean Isaac McCoy

Office Location: Houston H. Harte Center – Room# 209

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