

CMSC 340 - Cybersecurity Skills

Catalog listing: CMSC 340

Course Level: Undergraduate

Prerequisites: CMSC 210 (or CMSC 191) – Computer and Programming (Python)

Instructor: Carol Fung

Office: EIB 2310

Phone: (804) 828-9731 (office)

email: cfung@vcu.edu

Classroom: Virtual - Online

Class website: Canvas

Office Hours:

Zoom Video Conference: Every Friday at 5:00PM - <https://vcu.zoom.us/j/97724560977> (Links to an external site.)

Virtual by appointments: Contact instructor via email to schedule a time to meet via Zoom {or other preferred method, i.e. phone or in person.)

All communication by eMail to the instructor should include **CMCS 340** in the subject line for quicker response.

• – Overview of CMSC 340 Cybersecurity Skills

Semester course; 3 lecture hours (delivered online). 3 credits. **Prerequisite:** CMSC 210 (or CMSC 191) Computer and Programming. The course introduces students to cybersecurity terminology, standards and best practices. Students will apply these practices as part of a cybersecurity-focused project. This course is not applicable for credit toward the B.S. in Computer Science.

• – Course Goals

Upon successful completion of the course, the student will be able to:

1.
 1. Students should be comfortable using cybersecurity terminology in discussions with cybersecurity professionals

2. Students will have the ability to execute and discuss Risk Management processes
3. By end of the course, students should be able to discuss the 10 major domains of knowledge in Cybersecurity
4. Students should be able to work with security technologist and help them develop reports
5. By end of the course, students should be able to organize and track vulnerabilities
6. Explain the need, the role and purpose of information security in an organization

• – Major Topics Covered:

- - Introduction to Information Security
 - The Need for Security
 - Legal, Ethical, and Profession Issues in Information Security
 - Planning for Security
 - Risk Management
 - Security Technology : Access Controls, Firewalls, and VPNs
 - Security Technology: Intrusion Detection and Prevention Systems, and Other Security Tools
 - Cryptography
 - Physical Security
 - Implementing Information Security
 - Security and Personnel
 - Information Security Maintenance

Required Text:

Title: MindTap Information Security, 1 term (6 months) Instant Access for *Principles of Information Security, 6th Edition*

Author: Michael E. Whitman; Herbert J. Mattord

Publisher: Pearson

Year 2019

ISBN-10: 1-337-28164-6

ISBN-13: 978-1-337-28164-5

• – Evaluation:

General Instructions:

1. All projects and programming assignments must be uploaded to Canvas on or before the due date specified. Only files submitted to Canvas on or before the due date will be considered for grading. Requests to re-grade projects must be made with two weeks from the date the project grade is posted in Canvas, requests after this time will be denied.
2. No assignments will be accepted late unless special permission has been given prior to the due date.
3. No makeup assessments will be given unless special permission has been given prior to the date of the assessment. Request to adjust scores or re-grade assessments must be made the week in which the assessment is returned, requests after this time will be denied.
4. All programs are to be individual efforts. This does not preclude the discussion of techniques to be used or ideas for algorithms. In addition, it is permissible to help each other find syntax errors or minor logic errors. However, the actual correction of such errors is up to the author of the program. Programs will be run through a plagiarism detection program to ensure individual effort.
5. Do your own work. **Plagiarism applies to source code as with any other intellectual property. Plagiarized code is a form of cheating and will be treated as such.**

Grading:

Category	Weight Percentage
Discussion	25
Cybersecurity Skills Activities	25
Quizzes	50

Grading scheme:

A: $\geq 90\%$

B: $\geq 80\%$ and $< 90\%$

C: $\geq 70\%$ and $< 80\%$

D: $\geq 60\%$ and $< 70\%$

F: $< 60\%$