

Spring 2021

Course Description

MET CS 684

This course enables IT professionals to manage cybersecurity and privacy programs across industries. Students will be introduced to cybersecurity & privacy policy frameworks, governance, standards, and strategy. We will review and discuss methodologies for identifying, quantifying, mitigating, and controlling risks. Risk management fundamentals and assessment processes will be reviewed in depth to understanding risk tolerance is critical when building a cybersecurity and privacy program that supports business goals and strategies.

Asset classification and the importance of protecting Intellectual Property (IP) will prepare students to understand and identify protection mechanisms needed to defend against malicious actors, including industry competitors and nation states. Incident Response programs will cover preparation and responses necessary to triage incidents and respond quickly to limit damage from malicious actors.

This course covers the many important topics that students need to understand in order to effectively manage a successful cybersecurity and privacy program.

Course Learning Objectives

Upon successful completion of this course you will understand:

- The elements needed to effectively manage a cybersecurity and privacy program
- Risk management—identification, quantification, response, and control
- The importance of policy and governance within the cybersecurity and privacy program
- Asset classification and the value of Intellectual Property
- Security measures from Technology, Policy and Practice, and Education, Training, and Awareness dimensions
- Incident Response process and the importance of postmortem reviews
- Why cybersecurity and privacy require alignment with business strategy and goals

Course Outline

- Calendar Tool You can see many due dates in the Vista calendar tool . You may add your own events there as well. However, please be aware that you may not find all of the important dates for the course listed there. You will stay current by checking announcements, discussions, and emails in the course.
- **Readings** Each module has both textbook readings and online lectures . Your professor may suggest additional readings during the running of the course.
- Discussion There are threaded discussions for each module. These discussions are moderated by your instructor. Postings for each discussion should be completed by the

assigned due dates. There are also general discussions boards, which are not graded, for you to use to discuss any issues with your classmates. Please see the Discussion Module on the home page for more details.

• **Assignment** - There are assignments that are due throughout the course.

You may notice that the table of contents expands and contracts (+/- sign) and may conceal some pages. To avoid missing content pages, you are advised to use the next/previous page icons in the top right-corner of the learning modules.

Module 1: Information Security & Privacy Introduction

- Introduction to Information Security & Privacy
- Cyber threats & actors
- Law & Ethics

Module 2: Policy Framework

- The Policy Framework
- Policy elements & hierarchy
- U.S. and International Standards Organizations

Module 3: Developing the Security Program

- Planning the security program
- The Written Information Security Program (WISP)

Module 4: Risk Management

- The risk assessment process
- Assessing risk within the organization

Module 5: Asset Management & Information Classification

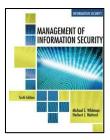
- Asset Classification
- Protected Personal Information
- Privacy concerns and considerations within cloud environments

Module 6: Incident Response & Disaster Recovery

- Incident Response overview
- Disaster Recovery Planning

Course Materials and Resources

Required Course Books



Management of Information Security, 6th Edition

Michael E. Whitman, Herbert J. Mattord

ISBN-10: 133740571X ISBN-13: 9781337405713

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Security Program and Policies: Principles and Practices, 2/E

Sari Greene

ISBN-10: 0789751674 • ISBN-13: 9780789751676

Published 03/19/2014

These textbooks can be purchased from <u>Barnes and Noble at Boston University</u>.

Online Resources:

https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-12r1.pdf https://www.us-

cert.gov/security-publications

https://www.cisa.gov/

https://www.infragard.org/

https://www.enisa.europa.eu/topics/threat-risk-management/threats-and-trends

https://iapp.org/news/

https://gdpr.eu/

https://www.iso.org/isoiec-27001-information-security.html

Accommodation of Special Needs

In accordance with University policy, we make every effort to accommodate unique and special needs of students with respect to speech, hearing, vision, seating, or other disabilities. Please notify <u>Disability Support Services</u> as soon as possible of requested accommodations.

Study Guide

The following material is collected here for your convenience but the required readings, discussion particulars, and assignment particulars can be found within the modules, in the "Discussion" section of the course, and in the "Assignment" sections respectively.

Module 1 Study Guide and Deliverables

Readings: Whitman, Mattord: pp 1-55, 78-104

Discussions: Please complete the Introduction Discussion before you continue in the course.

Discussion 1 postings end 2-4-2021 at 6:00 a.m. EST

Assignments: Assignment 1 due 2-4-2021 at 6:00 am EST

Module 2 Study Guide and Deliverables

Readings: Greene: pp 2-21, 32-53, 64-82

Whitman, Mattord: pp 169-214

Discussions: Discussion 2 postings end 2-18-2021 at 6:00 a.m. ET

Assignments: Assignment 2 due 2-18-2021 at 6:00 am ET

Module 3 Study Guide and Deliverables

Readings: Whitman, Mattord: pp 123-164, 197-214

Discussions: Discussion 3 postings end 3-4-2021 at 6:00 a.m. ET

Assignments: Assignment 3 due 3-4-2021 at 6:00 am ET

Module 4 Study Guide and Deliverables

Readings: Greene: pp 105-112

Whitman, Mattord: pp 303-316, 365-406

Discussions: Discussion 4 postings end 3-18-2021 at 6:00 a.m. ET

Assignments: Assignment 4 due 3-18-2021 at 6:00 am ET

Module 5 Study Guide and Deliverables

Readings: Greene: pp 442-470

Whitman, Mattord: pp 381-393

Discussions: Discussion 5 postings end 4-1-2021 at 6:00 a.m. ET

Assignments: Assignment 5 due 4-1-2021 at 6:00 am ET

Module 6 Study Guide and Deliverables

Readings: Whitman, Mattord: pp 497-562

Discussions: Discussion 6 postings end 04-15-2021 at 6:00 a.m. ET

The grade for the course is determined by the following:

Grading Criteria

Assessment Item(s)	% Final Grade
Assignments	40%
Discussions	30%
Final Examination	30%
Total Possible:	100%

Class Meetings, Lectures & Assignments

Lectures, Readings, and Assignments subject to change, and will be announced in class as applicable within a reasonable time frame.

Grading Scale				
Letter	100 pt. scale	4 pt. scale		
Α	95-100	3.85 - 4.0		
A-	90-94 3.7 – 3.8			
B+	86-89	3.3 - 3.69		
В	82-85	3.0 – 3.29		
B-	78-81	2.7 – 2.99		
C+	74-77	2.3 – 2.69		
С	70-73	2.0 – 2.29		
C-	67-69	1.7 – 1.99		
D	60-66	1.0 – 1.69		
F	0-59 0.0 – 0.99			

Criteria	C or lower	B- (2.7 – 2.99)	B (3.00 - 3.29)	B+ (3.30 -3.69)	A- (3.7 – 3.84)	A (3.85 – 4.00)
	Hardly covers any of the major relevant issues	Covers some of the major relevant issues	Reasonable coverage of the major relevant areas	Good coverage of the major relevant areas	Thorough coverage of almost all of the major relevant issues	Exceptionally thorough coverage of all major relevant issues
	Lack of understanding of, or lack of insight into material	Some understanding of material	Good overall understanding of material	Very good overall understanding of material	Very good overall understanding of material, with some real depth	Excellent, deep understanding of material and its interrelationships
Relevance &	Focus is off topic or on insubstantial or secondary issues	Some of the content is meaningful and on topic	Most of the content is reasonably meaningful and on topic	All content is reasonably meaningful and on-topic	All content is meaningful and relevant to the case.	All content is exceptionally relevant and meaningful
	Disorganized or Hard to understand presentation	Some parts of the presentation are disorganized or hard to understand	Generally organized and clear	Organized and persuasive presentation of ideas	Very clear, organized and persuasive presentation of ideas	Exceptionally clear, organized and persuasive presentation of ideas
Creativity & Innovativeness	Little significant or reasonably backed creative or innovative points-of-view or ideas	Few creative and innovative ideas or points of view that are reasonable & are backed by some analysis	Good, and fairly creative ideas or points of view that are perceptive & are backed by good analysis	Very good creative, and innovative ideas or points of view that are perceptive	Very good creative, and innovative ideas or points of view that are perceptive & are backed by strong analysis	Outstanding, creative, and innovative ideas or points or view that are perceptive & are backed by very strong analysis
Utilization of Source Materials	No useful references, or weak references with incorrect details or	Some use of source material and/or some details or applicability is incorrect	Good references applied usefully	References indicate research	References indicate strong research used well	References indicate exceptional research used persuasively

1/28/2021	Class – 1 Module - 1	
2/4/2021	Class – 2 Module - 1	Assignment 1 due
2/11/2021	Class – 3 Module - 2	
2/18/2021	Class – 4 Module - 2	Assignment 2 due
2/25/2021	Class – 5 Module - 3	
3/4/2021	Class – 6 Module - 3	Assignment 3 due
3/11/2021	Class – 7 Module - 4	
3/18/2021	Class – 8 Module – 4	Assignment 4 due
3/25/2021	Class – 9 Module - 5	
4/1/2021	Class – 10 Module - 5	Assignment 5 due
4/8/2021	Class – 11 Module – 6	
4/15/2021	Class – 12 Module – 6	
4/22/2021	Class – 13	Class Presentations
4/29/2021	Class - 14	Class Presentations