City University of New York (CUNY)

CUNY Academic Works

2020

CSCI 380 - Digital Operations and Cybersecurity Management (Syllabus)

Eric Spector
CUNY John Jay College

NYC Tech-in-Residence Corps

How does access to this work benefit you? Let us know!

John Jay College
City University of New York

CSCI 380-04: Selected Topics in Computer Science: Digital Operations and Cybersecurity Management

Course Information

    Adjunct Lecturer: Eric Spector (espector@jjay.cuny.edu)

    Classroom: NB 8.61

    Time: Wednesdays, 5:55 PM - 8:35 PM

Course Description

Learn about managing Operations, Cybersecurity, and Projects in the Digital Media field. The course will dive into various management methodologies and cybersecurity mitigation strategies. You will learn the vocabulary necessary to understand and discuss digital business operations, project management, and cyber security issues. You will gain an appreciation of the range of threats in the current environment and the measures that can be taken to counter these threats. The class will be about analyzing and managing the relationship between technology and business management.

The focus is on managerial and strategic issues of technology, rather than technical questions or technical skill sets. Students will work in small groups on various projects and will be required to present frequently in front of the class in order to improve their business communication skills.

Course Objectives & Learning Outcomes

    The goal of this course is to teach students operations, project management, and cybersecurity.

Students will learn:

- Project Management
    - Project Management Overview
        - About PMI
        - Project Management Lifecycle (PMLC)
        - Software Development Lifecycle (SDLC)
        - Project Governance
    - Project Charter and Project Plan
    - Agile Project Management
    - Project Stakeholder Management
- Cybersecurity
    - General Cybersecurity Overview
    - Denial of Service Attacks
    - Malicious Software
    - OWASP Top 10
    - Cybersecurity Trends for 2020

- Digital Operations Management
    - General Operations Management Overview
    - Managing Services
    - Managing Process
- Navigating technology market

Textbooks/Materials/Resources

All students must get a free CUNY subscription to the Wall Street Journal, see "Daily In-class News Presentations" section below.

Reading material will be posted to Blackboard.

Prerequisite Courses/Knowledge

This course requires senior status/permission from the Math and CS Department.

Students are expected to have an understanding of core computer science concepts, such as:

- Object oriented programming (topics such as abstraction, event-driven programming, inheritance, and polymorphism)
- Experience with a high level programming language (such as Java, C++, Python)
- Data structures (e.g., arrays, linked lists, hashmaps)
- Design patterns

Grading Policy

- Class participation and group work - 15%
- Assignments - 20%
- In-class news presentations - 10%
- Midterm exam - 25%
- Final project - 30%

Academic Integrity/Honesty Policy

Students are expected to attend all classes and take the exams at the scheduled times. Assigned readings and problems must be completed after each class. In addition, students will be expected to participate in class and offer solutions to problems.

You only learn if your work is your own. Cheating on exams or copying assignments will not be tolerated. Any form of cheating will be reported to the Dean of Students and will result in your failure of the course and possible suspension from the College. Please review the College's policies on Plagiarism and Cheating on the College web site and in the following section.

Additional information, definitions and examples can be found at https://www.jjay.cuny.edu/academic-integrity-0

Other Classroom Policies

- **Unless otherwise instructed cellphone, tablet, and laptop use is prohibited during class. If you must use your phone during class time, then please do so outside of the classroom.**
- No makeups will be given for the midterm.
- Late homework assignments will be graded down 10% per day late.
- If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed (see our email addresses above if you need to contact us).
- In general, the time to let me know about any problems or issues concerning missing class, long term illnesses, job related problems, academic probation, etc. is *before* you have missed a week or two of classes.
- All homework assignments are to be done individually. Students handing in similar work will both receive a 0 and face disciplinary actions.
- The lecturers reserve the right to give unannounced quizzes if it appears students are not putting the time in to prepare for class.

Daily In-class News Presentations

- All students must get a free CUNY subscription to the Wall Street Journal at
  - https://www1.cuny.edu/sites/cunyufs/2018/03/09/wall-street-journal-access-for-cuny-faculty-and-students/
- For every class, each student must find, read, and bring in a relevant article pertaining to the technical industry, project management, operations, or cybersecurity
- Each student must discuss their article for 2-5 minutes in front of the class
- Remember, this is 10% of your overall grade!

Reaction Papers

Reaction papers are individual, not group, assignments. You'll need to submit them via Blackboard, under the Assignments tab.

The paper is a reaction to the lecture, and should cover the following:

1. What you learned in the class
2. How you plan to apply what you learned
3. Any thoughts on the material

It should be no longer than 1 page, with a 12 point font, double spaced. The reaction paper must be written in standard business English. Points will be deducted for bad spelling and grammar.

Weekly Schedule of Topics to be Covered

Week	Topics	Readings / Assignments / Deliverables
Jan 29	Course objectives and expectations, Project Management Overview	Reaction Paper #1: Project Management Lifecycle (*Due Feb 5*)

		Case Study - HBR: When You Start a New Job, Pay Attention to These 5 Aspects of Company Culture *(Read by Feb 5)*
Feb 5	Project Management Overview (continued) Project Charter and Project Plan	-Reaction Paper #2 (Due Feb 19) Form and declare your groups -Group work: Project Charter and Project Plan
Feb 12	College Closed	
Feb 19	Agile Project Management	-Agile Case Study: Netflix Culture *(Read by March 4)* Group work: Project Charter and Project Plan
Feb 26	Agile Project Management (continued) Project Charter Review	Reaction Paper #3 (*Due March 4*) Case Study - HBR: Stop Neglecting Remote Workers *(Read by March 4)* Group work: Project Charter and Project Plan
March 4	Project Stakeholder Management Project Charter Due	Reaction Paper #5 (*Due March 11*)
March 11	Cybersecurity Overview	Read Owasp Top 10 https://owasp.org/www-project-top-ten
March 18	Cybersecurity Overview (continued) OWASP Top 10	Reaction Paper #6 (*Due April 1*)
March 25	Midterm	
April 1	Denial of Service Attacks Malicious Software Cybersecurity Trends for 2020	Reaction Paper #7 (*Due April 7*)
April 7 Wed Schedule	Digital Operations Overview	Case Study - HBR: Managing 21st-Century Political Risk *(Read by April 22)*
April 8	College Closed	
April 15	College Closed	
April 22	Digital Operations Overview (continued)	Reaction Paper #8 (*Due April 29*)
April 29	Managing Process and Services	Reaction Paper #9 (*Due May 6*)
May 6	Final presentations	
May 13	Final presentations	