Fall 2023

# **Instructor: Dipesh Patel**

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Class: Virtual Online Office Location: TBA Office Hours: R 09:00 AM to 12:00 PM (via Zoom)

### **Course Description:**

Comprehensive, multidisciplinary overview of the methods and means by which technology is used by the criminal in today's society. An examination of the historical, legal, technological and sociological aspects of cybercrime. The course covers the challenges of a new era of technology has brought to combating crime of all types, including terrorism. Topics covered will include: the sociology of the white-collar criminal, the criminal justice system and law enforcement, computer security and deterrence/prevention.

### Number of Credit Hours:

3

Prerequisite or Co-requisite:

Computing GUR

### Materials Required:

Textbook:

Possible Textbooks:

- 1. Cybercrime-Investigating High Technology Computer Crime | 2nd Edition | by Robert Moore | 2011 | ISBN-13: 978-1-4377-5582-4
- 2. Cybercrime. The Investigation, Prosecution and Defense of a Computer Related
- Crime | 3<sup>rd</sup> Edition | by Ralph Clifford | 2011 | ISBN-13: 978-1-59460-853-7

Software:

1. No additional software is required

Storage:

1. Some place to store files like Flash Drive, OneDrive, Google Drive, Box, etc.

# Course Objectives:

Upon completion of this course, students are able to:

- Have a very good understanding about how technology could and is used to commit digital crimes.
- Understand the legal system in the US under which computer crimes could be investigated
- Have a very good understanding about methods and procedures that could be used to mitigate and prevent serious computer crimes, including digital terrorism

#### Course Requirements:

This course is a hybrid course integrating both classroom lecture and lab for hand-on experience.

## Exams:

There are two exams. I will notify you of the exam date at least one week before the exam is given. If you are not in class that day, it is your responsibility to find out when the exam will be given. If you miss the exam, your grade for that exam will be zero. **Makeup examinations are provided only under exceptional circumstances and the student has to notify me before the exam begins either by e-mail or in person that they will miss the exam.** 

## Homework / Project Assignments:

Details of the homework assignments will be handed out or posted on Moodle. Assignments are to be submitted via Moodle. Homework assignments are to be completed individually by you. You may work in groups to complete the assignment, but each student must submit their own file. If you are having trouble with an assignment, please feel free to contact me or ask any student in the class. **Do not copy an assignment from another student and submit it as your own. If detected, you will get a zero for the assignment and reported to the Dean's office.** Every assignment must be completed and submitted via Moodle.

### Late Assignment:

Approved assignments that are turned in late, will be subject to penalty as follows:

- 1. Homework 10% reduction of the grade
- 2. Lab 10% reduction of the grade
- 3. Project 10% reduction of the grade
- 4. Quiz / Exam 20% reduction of the grade

# Academic Dishonesty:

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

#### http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at <u>dos@njit.edu</u>

#### Class Attendance:

Class attendance will be taken. However, it is your responsibility to find out about any lecture material, homework assignments and exams discussed in class. Attendance is highly correlated with good performance in the class, so attendance will be taken at each meeting.

Absences may be excused for athletics, religious holidays, illness, military obligation or family emergencies if you contact me before the missed class.

# Typical Assignments:

Students will be assigned 3-4 discussion/research topics. Homework will be assigned based on the cases discussed in class. Forum posts are assigned on a weekly basis. A comprehensive group project is assigned and involves a complete study of a digital crime, from the technology used to how the criminals were caught, what methods were used for surveillance, how the digital evidence was obtained and investigated, the prosecution and laws pertaining to that particular crime investigation.

### Performance Evaluation:

The course grade would depend upon your performance on assignments and exams. The following is an allocation of weights:

| <u>Evaluation</u>                       |      |   | <u>Grading</u>      |
|---|------|---|---------------------|
| Attendance / Discussion / Participation | 10%  | А | A(90-100)           |
| Homework Assignments                    | 10%  | В | B+(85-89), B(80-84) |
| Lab Assignments                         | 30%  | С | C+(75-79), C(70-74) |
| Team Project / Presentation             | 30%  | D | D (60-69)           |
| Written Exams (Midterm and Final)       | 50%  | F | 59 or less          |
| Total                                   | 100% |   |                     |

#### Tentative Class Schedule:

| Week  | Lecture   | Activities / Dues |
|-------|---|-------------------|
| 1     | Introduction to the Course  |                   |
|       | Introduction to Digital Crime   |                   |
| 2     | Hackers and Type of Attacks   |                   |
| 3     | Identity Theft  |                   |
| 4     | Child Exploitation Crimes and the US Laws   |                   |
| 5     | Digital Financial Crimes  |                   |
| 6     | Cybercrimes on the Internet   |                   |
| 7     | Online Cybercrime Investigations  |                   |
| 8     | Written Midterm Exam  | Midterm Exam      |
| 9     | Spring Break  |                   |
| 10    | Seizure of Digital Evidence   |                   |
| 11    | Execution of Search Warrants  |                   |
| 12    | Computer Forensics as an Investigative Tool   |                   |
| 13    | Legal Aspects of Digital Crimes   |                   |
| 14    | The Future of High Tech Crimes  |                   |
| 15    | Presentations   | Project           |
| 16    | Written Final Exam  | Final Exam        |
| Note: | Chapters to cover on the indicated dates may vary according to each individual class. |                   |

# **Optional Topics:**

- 1. Crimes committed via Social Networks, including international computer crimes
- 2. Crimes committed via mobile phones, their legal environment and investigations