Course Description

Course sessions will focus on:

- Authentication, Authorization and Auditing (2 lectures)
- Malware taxonomy (e.g. Trojan horses, viruses, worms) (1 lecture)
- Malware payload categories (e.g. ransomware, RAT, financial malware) (1 lecture)
- Intrusion detection and prevention system (1 lecture)
- IT and Cloud security (1 lecture)
Course Goals

The course will provide the students understanding of:

- The cyber threats landscape
- The tools and techniques used by cyber attackers
- The technologies, products, policies and procedures that should be used to secure operations in the cyber space.

Grading

The course final grade will be composed from:

- final paper grade - 60%
- quiz - 20%
- home assignment(s) grade - 20%

Learning Outcomes

At the end of the course the student should be able to:

- Describe cyber attack classification and attacker's motivation
- Describe the various types of cyber-attacks, including the various types of malware (e.g. worms, viruses, trojans, etc.)
- Describe the information security technologies and products that can be used to mitigate cyber attacks
- Delineate how to defend against the different cyber attacks using the relevant technologies and products

Lecturer Office Hours

On Thursday after the lecture (13:00 - 14:00)

Tutor Office Hours

N/A
Teaching Assistant

Mr. Alex Pack

Additional Notes

Students are required to attend all classes and any assigned supplementary activities related to the course.

Classes will consist of lectures and discussions.

There will be home assignments and a quiz at the last class of the course.

Reading List

There is no text book for the course as it will cover many different subjects.

The presentations used in the course lectures will be detailed and should be used as a basis for learning the topics learned in the course. The lectures presentations will be uploaded to the course web site before each lecture.

In addition, I will upload to the course web site additional research papers and other relevant material, and the students are asked to read these papers as preparation to the lectures.