

COMP4633 Competitive Programming in Cybersecurity III

Syllabus (2023 Fall)

Course Description:

This is the last course out of a series of three special courses that aim to prepare interested students in joining the various cybersecurity competitions. This course aims to let experienced senior students who have joined COMP2633 and COMP3633 to share experience and help training the new incoming junior students of COMP2633 for the various cybersecurity competitions.

Prerequisite(s):

COMP3633 and instructor consent

Exclusion(s):

None

Course Intended Learning Outcomes (CILOs):

Upon completion of the course, students are expected to be able to:

	Course Intended Learning Outcome (CILO)
1	Be able to apply and understand ethical hacking
2	Be able to acquire leadership through the training of the more junior student members who will be taking part in the cybersecurity contests
3	Be able to educate less experienced students regarding cybersecurity and provide the leadership in sharing and deepening the understanding of cybersecurity issues among the student community
4	Be able to deal with real-world cyber-security issues, providing concrete advice to the various cyber-security problem to the senior management of the various organizations
5	Be able to explore and equip themselves with the advanced techniques to deal with cyber-attacks and provide the leadership in fighting against cyber-attacks

Assessments:

A+ to F

Assessment Method	Description	Weighting	CILOs to be addressed
Sharing of experience and knowledge in the classes.	Attend some of the classes of COMP2633. Do professional presentations during the classes of COMP2633 to Share the experience knowledge with the junior students of COMP2633.	50%	1,2,3,4,5
Joining CTF competitions		50%	2,3,4,5

Topics:

This is a course for sharing the highly specialized cybersecurity competition experience, there is no fixed set of topics to be addressed in the course. But there are tasks the students of COMP4633 would need to accomplish. Depending on the expertise of the student taking COMP4633, he/she will be responsible for sharing the experience in basic training, in track A, or in track B of the COMP2633 training modules (see the syllabus of COMP2633 for the contents of track A and track B). The COMP4633 students would need to coach the junior students on more advanced trainings based on their own perspectives and experience. They would also need to participate in some major CTF competitions during the semester.