

Module Layout SEC102 CyberSecurity

Faculty	STHEE	Faculty of Pure and Applied Sciences	
Programme of Study	SEC	Security and Defense	
Module	SEC102	CyberSecurity	
Level of Study	Undergraduate		Graduate
		Master	Doctoral
		✓	
Language of Instruction	English		
Mode of Delivery	Distance Learning		
Module Type	Required		Electives
	✓		
Number of Group Consulting Meetings	Total	Physical Presence	Online
	14	0	14
Number of Assignments	2 Assignments, 12 Interactive Exercises		
Final Grade Calculation	Assignments	Interactive activities	Final exam
	30%	20%	50%
Number of European Credit Transfer System (ECTS)	10		

Module Description

This module introduces students to Cybersecurity issues, ranging from Network Security to Cryptography, Malware, Database & Cloud Security, Operating System Security and IT Security Management, etc. It aims to familiarize students with the methodologies and tools used by adversaries (the “bad guys”). Hence, the concepts are approached from both a theoretical, academic viewpoint, as well as from a practical, non-academic viewpoint, closer to the adversaries’ mentality. In order to achieve this target, two kinds of books are used in both the Compulsory reading list, as well as the Optional reading list: famous academic textbooks used worldwide, but also technical books teaching practical skills.

Most of the tools used in this module are available for all popular operating systems. However, the use of a (free) Linux distribution for Ethical Hacking penetration testing, such as Kali Linux is suggested, because it comes with all these tools preinstalled. Parrot Security Edition is another option (<https://parrotlinux.org>).

Pre-requisite Modules

None

Co-requisite Modules

None

Grading Scheme

Assessment Method	Percentage on Final Grade	Workload	
		Hours	ECTS
Weekly study- Assignments -Group Meetings (14 weeks *~14 hours)	0%	175-210	7
Assignment 1	15%	25-30	1
Assignment 2	15%	25-30	1
Interactive activities	20%	25-30	1
Final exam	50%	3	
Total	100%	250-300	10

Grading Rules and Assessment methods

- Students are evaluated with 9, if they earn 90% of the possible grade, i.e. $90\% \times 10 = 9$, etc.
- Passing rate
 - 50% of the Assignments
 - 50% of the Interactive Activities
 - Students are allowed to participate in the final exam of a Module if they have overall earned the minimum grade ($\geq 50\%$) in both their Assignments and Interactive Activities
 - 50% of the Final exam

If a student earns a grade with decimal points, then it is rounded to the nearest half unit.