COURSE SYLLABUS AND COURSE REQUIREMENTS
ACADEMIC YEAR 2023/2024 SEMESTER SPRING

Course title	*Information Security 2.*
Course Code	IVB166ANMI
Hours/Week: le/pr/lab	0/0/2
Credits	4
Degree Programme	Computer Science Engineering
Study Mode	*full time course*
Requirements	Semester grade
Teaching Period	spring
Prerequisites	Information Security 1.
Department(s)	System and Software Technology
Course Director	Gábor Gyurák
Teaching Staff	*Gábor Gyurák*

COURSE DESCRIPTION

In this project-oriented subject, students will be given the opportunity to deepen their knowledge of IT security while developing their soft skills.

SYLLABUS

1. GOALS AND OBJECTIVES

Students who successfully complete this course will have a comprehensive overview of computer
systems security as well as more in depth understanding of a number of focus areas that they select throughout the course. Furthermore, students will gain practical experiences in cybersecurity. By the end of the semester students will be able to:

- protect IT systems, attack IT systems
- control the management plane
- configure access control lists and firewalls
- monitor and detect intrusions
- manage endpoint security
- configure and operate VPNs

2. COURSE CONTENT

Neptun: Instruction/Subjects/Subject Details/Syllabus/Subject content

	TOPICS
LECTURE AND PRACTICE	Topics 1. Network defense 2. Network management 3. ACL, firewall 4. Network monitoring and forensics 5. IDS, IPS 6. Endpoint security 7. Criptography 8. VPNs

DETAILED SYLLABUS AND COURSE SCHEDULE

PRACTICE, LABORATORY PRACTICE

week	Topic	Compulsory reading; page number (from … to …)	Required tasks (assignments, tests, etc.)	Completion date, due date
1.	Registration	-	-	-
2.	Securing networks	[1] 1-4 chapter	-	-
3.	Monitoring network devices	[1] 5-7 chapter	-	-
4.	ACLs and firewalls	[1] 8-10 chapter	-	-
5.	OWASP	-	-	-
6.	Intrusion prevention	[1] 11-12 chapter	-	-
7.	Endpoint security	[1] 13-14 chapter	-	-
8.	Cryptography	[1] 15-17 chapter	-	-
9.	VPN	[1] 18-19 chapter	-	-
10.	Homewrok presetation	-	-	-
11.	Homework presentation	-	-	-
12.	Midterm test	-	Midterm test	-
13.	Break	-	-	-
14.	Retake	-	Retake	-

3. ASSESSMENT AND EVALUATION

ATTENDANCE

In accordance with the Code of Studies and Examinations of the University of Pécs, Article 45 (2) and Annex 9. (Article 3) a student may be refused a grade or qualification in the given full-time course if the number of class absences exceeds 30% of the contact hours stipulated in the course description.

Method for monitoring attendance *(e.g.: attendance sheet / online test/ register, etc.)*

attendance sheet

ASSESSMENT

Course-unit with semester grade

Mid-term assessments, performance evaluation and their weighting as a pre-requisite for taking the final exam

Type	Assessment	*Weighting as a proportion of the pre-requisite for taking the exam*
Midterm test	*100 points*	*100 %*

Requirements for the end-of-semester signature

Homework presentation
Midterm test minimum 40%

Re-takes for the end-of-semester signature (PTE TVSz 50§(2))

The specific regulations for grade betterment and re-take must be read and applied according to the general Code of Studies and Examinations. E.g.: all the tests and the records to be submitted can be repeated/improved each at least once every semester, and the tests and home assignments can be repeated/improved at least once in the first two weeks of the examination period.

Reatek test is scheduled to the 15th week.

Type of examination *(written, oral): -*

The exam is successful if the result is minimum ***40*** ***%***

Calculation of the grade *(TVSz 47§ (3))*

The mid-term performance accounts for ***100*** %, the performance at the exam accounts for ***0*** % in the calculation of the final grade.

Calculation of the final grade based on aggregate performance in percentage.

Course grade	Performance in %
excellent (5)	85 % …
good (4)	70 % ... 85 %
satisfactory (3)	55 % ... 70 %
pass (2)	40 % ... 55 %
fail (1)	below 40 %

The lower limit given at each grade belongs to that grade.

4. SPECIFIED LITERATURE

In order of relevance. (In Neptun ES: Instruction/Subject/Subject details/Syllabus/Literature)

COMPULSORY READING AND AVAILABILITY

[1.] Cisco Networking Academy – Network Security kurzus
[2.] Gyurák Gábor – Informatikabiztonság I-II., Pécs, 2015.
[3.] moodle.mik.pte.hu Presentation slides

RECOMMENDED LITERATURE AND AVAILABILITY

[1.] William Stallings, Lawrie Brown - Computer Security Principles and Practices (2nd edition), Pearson, 2011.