General Information:

Name of Course: # INFORMATION SECURITY 2.

Course Code:	IVB166ANMI
Semester:	**6**th
Number of Credits:	4
Allotment of Hours per Week:	**2** Lab classes /Week
Evaluation:	Semester grade
Prerequisites:	**Information Security 1.**

Instructor: **Gábor GYURÁK, assistant lecturer**
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Introduction, General 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.

Learning Objectives:
Students who successfully complete this course will have a comprehensive overview of Information Security.

This course has 3 pillars:
(1) (**ONLINE MATERIALS**) Students acquire IT security related topics via online courses provided by the instructor. This part covers the following topics: Management plane security, Control Plane Security, Data Plane Security, Firewalls, Intrusion Detection Systems, Authentication, Authorization, Audit, VPN technologies (remote access VPN, site-to-site VPN).

(2) (**HOMEWORK**) At the beginning of the course the student choose an IT security related project. The instructor will be the supervisor of this work. The project work must be an independent work and must show some engineering product or scientific result. The format of the documentation is fixed and equals to the diploma work format.

(3) (**EXPERIENCE**) Students have to take part in programs outside of the University. This programs are organized by industrial partners and coordinated by the instructor. *In a pandemic situation this pillar is suspended!*

Methodology:
- **Practical class**: will give an introduction of planning, building, programming, operating and troubleshooting secure IT systems.

Schedule:

WEEK	TOPIC	Tests
1	Course registration	-
2	Securing networks	-
3	Pollack Expo (no classes)	
4	Montoring and managing devices	T1
5	ACLs and Firewalls	T2
6	Intrusion Prevention	T3
7	Layer 2 and Endpoint Security	T4
8	Cryptography	T5
9	VPN basics	T6
10	VPN adavanced	T7
11	Spring break (no classes)	
12	Homework presentation and defense	HW
13		
14	Mindterm Test	MT
15	Retake	RT

Attendance:
Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must notify the lecturer as soon as possible and must present a valid excuse, such as a doctor's note.

Evaluation + Grading:
The course grade is determined as a combination of study-period performance.

Student must complete these parts:
- work with online materials and complete **Group Tests (T1 – T7)**
- solve and defend the **HomeWork (HW)**
- pass the **Midterm Test (MT)**

Final grade is calculated:

- T1 2 points (Modules 1-4)
- T2 3 points (Modules 5-7)
- T3 3 points (Modules 8-10)
- T4 3 points (Modules 11-12)
- T5 3 points (Modules 13-14)
- T6 3 points (Modules 15-17)
- T7 3 points (Modules 18-19)

  20 points (minimum 5 points)

- HW 30 points (minimum 10 points)
- MT 50 points (minimum 20 points)

  80 points

A total of 100 points can be earned during the semester.

Test scores

Group Test	0-59%	60-69%	70-89%	90-100%
T1	0	0	1	2
T2	0	1	2	3
T3	0	1	2	3
T4	0	1	2	3
T5	0	1	2	3
T6	0	1	2	3
T7	0	1	2	3
Group tests total points				**20 points**
Minimum requirement				*5 points*

All exams and tests are closed-book and closed-notes. Any students who do not take the examination at the scheduled time will receive a zero score.

Retake of the Midterm Test (MT) is possible at the 15th week. There is no possibility to retake the Group Tests (T1-T7).

Grade:	5	4	3	2	1
Evaluation in percent:	85%-100%	75%-84%	65%-74%	51%-64%	0-50%

PTE Grading Policy:
Information on PTE's grading policy can be found at the following location:
www.pte.hu

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Readings and Reference Materials:

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

2. Randy Weaver - Guide to Tactical Perimeter Defense: Becoming a Security Network Specialist, Cengage Learning, 2007.