STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Data security**		Code **1010331571010330124**

Field of study **Information Engineering**	Profile of study (general academic, practical) **general academic**	Year /Semester **4 / 7**
Elective path/specialty **Security of Information Technology (IT)**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**

Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **full-time**

No. of hours				No. of credits
Lecture: **-** Classes: **-** Laboratory: **15**		Project/seminars: **15**		**4**

Status of the course in the study program (Basic, major, other) **other**	(university-wide, from another field) **university-wide**

Education areas and fields of science and art **technical sciences**	ECTS distribution (number and %**)** **4 100%**

Responsible for subject / lecturer:

dr inż. Anna Grocholewska-Czuryło
email: anna.grocholewska-czurylo@put.poznan.pl
tel. 61-665 35 31
Wydział Elektryczny
ul. Piotrowo 3A 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Has structured knowledge based on a theoretical foundation in the area of basic algorithms and their analysis, algorithm design techniques, abstract data structures and their implementation, computationally hard problems.
		Has structured knowledge based on a theoretical foundation in the area of network technologies and data protection basics.
2	**Skills**	Is able to search for information in literature, databases and other sources; is able to integrate acquired information, interpret it, draw conclusions and formulate and argument opinions.
3	**Social competencies**	Is able to construct algorithms using basic algorithmic techniques and analyse their complexity.

Assumptions and objectives of the course:

The goal of the course is to broaden the ability to apply data protection methods in information systems.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Has structured knowledge based on a theoretical foundation in the area of data protection and information systems security. - [-]

Skills:

1. Is able to apply appropriate data protection methods and ensure security of the information system. - [-]

Social competencies:

1. Is aware of the importance of professional behaviour, following professional ethics and respecting diverse views and cultures. - [-]

Assessment methods of study outcomes

Laboratory class with scoring based on presence record, performed exercises, quality of reports and final test.

Project is scored based on presence record, project work and project documentation.

Course description

Teaching methods (prject and laboratory): Reports and conclusions are discused.

Laboratory classes: Asymmetric cryptography. SSH and PGP, digital certificates X.509, time stamps,

Modification (laboratory 2017): PKI components and services, keys and certificates menagement .

Modification (project 2017): project development and documentation of the PKI and PKI components implementation.

Basic bibliography:

1. PKI podstawy i zasady działania, Adams C., Lloyd S.,Wydawnictwo Naukowe PWN SA, 2007

2. Teoria bezpieczeństwa systemów komputerowych, Pieprzyk J., Hardjono T., Seberry J., Helion, 2003

Additional bibliography:

Result of average student's workload

Activity	Time (working hours)
1. Participating in project classes	15
2. Participating in laboratory classes	15
3. Practical preparation for laboratory classes	15
4. Preparing laboratory classes reports	20
5. Preparing to tests	15
6. Executing a project	30
7. Participating in consulting meetings	10

Student's workload

Source of workload	hours	ECTS
Total workload	120	4
Contact hours	35	1
Practical activities	75	3