STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
IT system management		**1010331461010337133**

Field of study	Profile of study (general academic, practical)	Year /Semester
Computer Science	**(brak)**	**3 / 6**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Information Technologies	**polish**	**obligatory**

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

No. of hours					No. of credits
Lecture: **1**	Classes: **-**	Laboratory: **1**	Project/seminars: **-**		**3**

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

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**3 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	K_W07: Student has organized knowledge with theoretical foundations of computer networks. K_W13: Student has organized knowledge with theoretical foundations of data protection and IT system security. K_W18: Student knows common IT engineering technology.
2	**Skills**	K_U04: Student is able to prepare and to demonstrate short presentation of engineering task results. K_U05: Student is able to self learning in order to increase professional skills. K_U11: potrafi dokonać krytycznej analizy sposobu funkcjonowania sprzętu komputerowego, systemu operacyjnego (lub ich fragmentów) i sieci komputerowych
3	**Social competencies**	K_K02: Student understands and is aware of the importance of nontechnical issues related to computer engineer activity. Student understands the responsibility associated to his engineering decisions. K_K05: Student is able to think and work in enterprising way.

Assumptions and objectives of the course:

Students should obtain theoretical knowledge and experience in IT system management with special emphasis on such issues as: data security, operational environment heterogeneity.

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

Knowledge:

1. Student has organized knowledge with theoretical foundations of computer networks. - [K_W07]
2. Student has organized knowledge with theoretical foundations of data protection and IT system security. - [K_W13]
3. Student has basic knowledge of IT system management. - [K_W14]

Skills:

1. Student is able to work alone and in a group; student can assess time needed to finish a given work; student can develop and realize schedule necessary to keep up deadlines. - [K_U02]
2. Student is able to do critical analysis of computer hardware operations, operating system and computer networks. - [K_U11]

Social competencies:

1. Student understands and is aware of the importance of nontechnical issues related to computer engineer activity. Student understands the responsibility associated to his engineering decisions. - [K_K02]
2. Student is able to think and work in inventive way. - [K_K05]

Assessment methods of study outcomes

Lecture ? test.

Project - project assessment.

Course description

Lecture. Functions, duties and tasks of network manager. Elements of the management process: hardware configuration, access control system, user account management, monitoring, optimization, time management, security violations, system documentation, contingency plan, resource planning, personnel management, cooperation with service providers, system development. Basic tools and protocols for network management (e.g. SNMP, DHCP, NTP, DNS, syslog). Information security policy.

Laboratory. DHCP server configuration. DNS server configuration. Computer networks management with SNMP and other tools. Access control system. User and admin accounts management.

Basic bibliography:

1. Tanenbaum A., Computer Networks,

2. Limoncelli T., Time Management for System Administrators, O'Reilly, 2006

Additional bibliography:

1. Comer D., Computer Networks and Internets

Result of average student's workload

Activity	Time (working hours)
1. Lectures	8
2. Projects	8
3. Test preparation	15
4. Theoretical preparation for projects	5
5. Practical preparation for projects	42
6. Test	2
7. Consultations	7

Student's workload

Source of workload	hours	ECTS
Total workload	87	3
Contact hours	25	1
Practical activities	50	2