STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Information Technology in Construction**		Code **1010112111010105653**
Field of study **Civil Engineering**	Profile of study (general academic, practical) **(brak)**	Year /Semester **1 / 1**
Elective path/specialty **-**	Subject offered in: **-**	Course (compulsory, elective) **obligatory**
Cycle of study: **Second-cycle studies**	Form of study (full-time,part-time) **full-time**	

No. of hours				No. of credits **3**
Lecture: **30**	Classes: **-**	Laboratory: **15**	Project/seminars: **-**	

Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**
Education areas and fields of science and art	ECTS distribution (number and %**)**

Responsible for subject / lecturer:

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Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	General technical knowledge about information systems and the Internet. General knowledge about management, especially in the construction sector.
2	**Skills**	Basic skills to use computers and the Internet
3	**Social competencies**	Team cooperation on projects. Ability to present in a structured manner to a team of collaborators a set of tasks to perform and the associated obtained results.

Assumptions and objectives of the course:

Knowledge about choose strategies to manage organizations and their environment using information technology aiming at supporting the construction sector

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

Knowledge:

1. Knows the characteristics of e-business and e-economy. - [K_W19]

2. Knows the characteristics of the information society. - [K_W11]

3. Understands the influence of information technologies on the structure of private organizations and public administration. - [-K_W11]

4. Knows the potential support of information technologies for organization operations. - [-K_W11]

5. Knows the global trends in technology and the economy and understands the influence of IT on the construction sector. - [-K_W11]

Skills:

1. Can describe the potential use and importance of Internet-based solutions aiming at improving the realization of investments in the construction sector. - [-K_U05]

2. Can apply appropriate e-business models in given cases. - [-K_U12]

3. Can apply virtual organization models in business and administrative projects. - [K_U13]

4. Can apply appropriate IT tools to effectively plan a project and organize collaboration - [-K_U12]

Social competencies:

1. Is aware of dynamic phenomena occurring in the electronic economy and of the unceasing need for the acquisition of new competences related with IT - [-K_K07]

2. Can presented the role of the Internet and IT as a factor fostering the development of markets. - [-K_K07]

3. Can describe and evaluate strategies aiming at improving productiveness, efficiency, innovation and profitability as well as strategies to form virtual organizations. - [-K_K07]

4. Can explain the concept of IT-based management. - [-K_K07]

5. Can analyze and present novel information technologies and indicate their potential application to the construction sector. - [-K_K07]

Assessment methods of study outcomes

Open question written exam

Team project ended by a presentation

Open discussions

Course description

1.	Innovativeness
2.	Privacy
3.	Cloud computing
4.	Knowledge based economy
5.	Virtual organizations
6.	Entrepreneurship
7.	Information Management
8.	Version Control Systems
9.	Project Management Systems
10.	Sourcing and Electronic Auctions
11.	Contract-Oriented Negotiation Support Systems
12.	Communication-Oriented Negotiation Support Systems
13.	Big Data

Basic bibliography:

1. Teaching materials provided on the course space on the Moodle platform of the Poznań University of Economics

Additional bibliography:

1. Publikacje UNDESA (United Nations Department of Economic and Social Affairs Publications) http://www.un.org/esa/desa/

2. Publikacje UNDP (Program Narodów Zjednoczonych ds. Rozwoju), http://web.undp.org/publications/

3. Czasopismo World Economics. The Journal of Current Economic Analysis and Policy, http://www.world-economics-journal.com/

4. Opracowania statystyczne dostępne na stronach Banku Światowego, http://data.worldbank.org/

5. Publikacje i opracowania statystyczne Organizacji Współpracy Gospodarczej i Rozwoju (OECD) związane z tematyką elektronicznej gospodarki i technologii informacyjnych, http://www.oecd-ilibrary.org

Result of average student's workload

Activity	Time (working hours)
1. 1. Classes participation	45
2. 2. Works preparation	30
3. 3. Computer work	15
4. 4. Works finishing	30

Student's workload

Source of workload	hours	ECTS
Total workload	100	3
Contact hours	50	2
Practical activities	30	1