

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Entrepreneurship and Lean Management		Code 1010101161010107435
Field of study Civil Engineering First-cycle Studies	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 6
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 30 Classes: 15 Laboratory: - Project/seminars: 15		No. of credits 5
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: mgr inż. Sebastian Dubas email: sebastian.dubas@put.poznan.pl tel. 616652830 Faculty of Civil and Environmental Engineering ul. Piotrowo 5 60-965 Poznań		Responsible for subject / lecturer: mgr inż. Piotr Nowotarski email: piotr.nowotarski@put.poznan.pl tel. 616652190 Wydział Budownictwa i Inżynierii Środowiska ul. Piotrowo 5
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge on mathematics and economics.
2	Skills	solving problems, use of gathered knowledge, systematic work.
3	Social competencies	work in groups, creativity.
Assumptions and objectives of the course:		
- Aim of this subject is familiarising students with basic aspects of entrepreneurship and lean management. In terms of entrepreneurship students learn about forms of conducting business activity, biznesplan and finance in business.		
- On lean management part students learn about: Lean Management; 6 Sigma; Fathers of Lean Management; Why do companies use the tools of Lean Six Sigma; Why quality is important; General rules for implementing the LM.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. ma podstawową wiedzę na temat prowadzenia działalności gospodarczej w budownictwie - [K_W16]		
Skills:		
1. umie przygotować biznesplan i plan finansowy przedsięwzięcia - [-]		
Social competencies:		
1. potrafi pracować samodzielnie i współpracować w zespole nad wyznaczonym zadaniem. - [K_K01]		
2. ma świadomość konieczności podnoszenia kompetencji zawodowych i osobistych. - [K_K06]		
Assessment methods of study outcomes		
- Written exam from lectures consisting of 4 to 8 open questions. Exam takes place on last classes of the semester.		
- written final test in moodle system consisting of 4 to 10 open and closed questions. Final test takes place on last classes of the semester.		
- project course is passed on basis of correctly done project, according to regular consultations, and defending project within due date before last classes of the semester.		
Course description		

<p>- During lectures discussed problems are:</p> <ol style="list-style-type: none"> 1. forms of business activity, commercial companies, law and tax aspects of companies, basic terminology on economics and law. 2. taxes in business activity - VAT, lump sum, tax card. 3. finances of companies, bill of gains and losses, costs of commercial activity, planing finances depreciation, leasing, discounting monetary value over time. 4. Lean Management; 6 Sigma; Fathers of Lean Management; Why do companies use the tools of Lean Six Sigma; Why quality is important; General rules for implementing the LM; Value stream; 8 Muda; Types Muda; Mura; Muri; Sea of inventory; DMAIC cycle; Card Project; Voice of the customer; SIPOC; Brainstorm; 5Whys; Pareto chart; Ishikawa diagram <p>Learning Methods: ? lecture / problem lecture / lecture / lecture with multimedia presentation / story ? exercises / exercises based on the use of various sources of knowledge (film, photographs, archives, source texts, documents, statistical yearbooks, maps, Internet, etc.) / project method / case study (case study) / classic problematic method Project-laboratory / project methodology /</p>		
<p>Basic bibliography:</p> <ol style="list-style-type: none"> 1. Przedsiębiorczość dla ambitnych ? Jerzy Cieślík 2. Własna firma ? Iwona Bogaczyk i inni 3. Wybrane zagadnienia finansów przedsiębiorstw ? Jolanta Iwin-Garzyńska, Adam Adamczyk 4. The Machine That Changed the World by James P. Womack, Daniel T. Jones, and Daniel Roos, Free Press, ISBN-13: 978-0-7432-9979-4 		
<p>Additional bibliography:</p> <ol style="list-style-type: none"> 1. Barriers in running construction SME?case study on introduction of agile methodology to electrical subcontractor 		
<p>Result of average student's workload</p>		
<p>Activity</p>		<p>Time (working hours)</p>
1. Participation in classes Lecture + Excercise + Projects		60
2. Learning to exam		25
3. Learning to final test		15
4. Preparation of business plan		50
<p>Student's workload</p>		
<p>Source of workload</p>	<p>hours</p>	<p>ECTS</p>
Total workload	150	5
Contact hours	60	3
Practical activities	50	2