

University POLITEHNICA of Bucharest (UPB)
 Faculty of Industrial Engineering and Robotics (IIR)
 Study Programme: Industrial Engineering (IE)
 Level of study: Licence (Bachelor)

COURSE SPECIFICATION

Course title	Course code	Semester	Credits (ECTS)
Technology Strategy	UPB.06.S.08.O.002	8	7

Coursestructure	Lecture	Project	Total hours
<i>Number of hours per week</i>	3	3	6
<i>Number of hours per semester</i>	42	42	84

Academic staff	Lecture	Project
<i>Name, academic degree</i>	Marian GHEORGHE, Professor	Dragoş ILIESCU, Assoc. Lecturer
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Course description

Objective

Achievement of knowledge and skills on strategy of research, development and implementation of future technologies.

Structure

- Human Resource Attributes • Configuration Analytical Functions • Variants and Optimization
- Creativity and Innovation • Technological Forecast • Industry Sustainable Development

Project description

Objective

Formation of practical skills through analysis and development a case study on technology strategy.

Structure

- Theme • General initial data • Analysis of the actual state of the subject • Development of the subject
- References

Intended learning outcomes

- Knowledge and best practice of specific elements related to course area.
- Explanation and interpretation of ideas, processes, projects, theoretical and practical contents in the course area.
- Use of methods, techniques and instruments of investigation and implementation, expression of a positive and responsible attitude to scientific field.

Assessment method	% of the final grade	Minimal requirements for award of credits
Written exams	40	Total of min. 50 points, including laboratory of min. 20 points and homework of min. 10 points
Project	40	
Homework	20	

References

- Gheorghe M., *Technology Strategy*, Course Notes, UPB, 2022-23
- Gheorghe M., Iliescu D., *Guide on project structure and possible themes*, UPB, 2022-23
- Swilling M., *The Age of Sustainability - Just Transitions in a Complex World*, Routledge Publisher, 2019
- Tortorella G., et al., *Industry 4.0: what is the relationship between manufacturing strategies, critical success factors and technology adoption?* [J. of Manufacturing Technology Management](#), 2022, DOI: 10.1108/JMTM-02-2022-0088, WOS: 000828811800001 (WOS/ Q1, S, GS)

Prerequisites	Co-requisites (courses to be taken in parallel as a condition for enrolment)
Manufacturing Processes; Product Design and Development	

Date: 05.09.2022

Course Coordinator,

Prof.dr.ing. Marian GHEORGHE