POLITEHNICA University of Bucharest (**UPB**)
Faculty of Engineering and Management of Technological Systems (**IMST**)
Study Programme: Industrial Engineering (**IE**)
Form of study: Master

COURSE SPECIFICATION

Course title:	E-business in industrial engineering	***Semester:***	III
Course code:	UPB.06.M3.O.04	***Credits (ECTS):***	5

Course structure	Lecture	Seminar	Laboratory	Project	Total hours
Number of hours per week	2			2	4
Number of hours per semester	28			28	56

Lecturer	Lecture	Seminar / Laboratory / Project
Name, academic degree	Lidia Parpala, Lect.PhD.Eng	Lidia Parpala, Lect.PhD.Eng
Contact (email, location)	lidia.parpala@gmail.com	

Course description:

This course proposes students an advanced study regarding e-business methods and techniques.
The main objectives of the course are:

- Developing the capacity to design complex and innovative e-business systems using original solutions;
- Developing the capacity to act in order to obtain maximum benefit from the application of e-business processes in industrial engineering;
- Main concepts and notions regarding e-business. Methods and techniques for e-business;
- E-business systems and projects design;
- The impact of mass-customisation in the on-line environment;
- Optimizing virtual industrial communities for competitive advantage;
- Security against Distributed Denial of Service attacks on SMEs;
- Measuring success for business websites and comparison of effectiveness of online marketing to traditional media.

After this course, students should be able to model and simulate business processes in order to manage complex production processes and systems.

Seminar / Laboratory / Project description:

The subjects covered during project classes are:

- General application architecture for the digital economy.
- Service oriented architecture
- Business process management using WebSphere Business Modeller
- Business process modelling
- Business process simulation and analysis
- Using process metrics and key process indicators
- Implementing and developing applications using WebSphere Integration Developer
- Business process monitoring using WebSphere Business Monitor

Intended learning outcomes:
By the end of the course students would be able to: • Use advanced integrated software for solving complex tasks, specific to Industrial Engineering domain • Manage and assure quality of complex production processes and systems. • Carry out activities while undertaking the roles specific for the team work performance on different hierarchical levels and assuming leadership roles; promoting initiative, dialogue, cooperation, positive attitude and respect for others, diversity and multiculturalism, continuous improvement of own activity.

Assessment method:	% of the final grade	Minimal requirements for award of credits
Written exam	40	
Report / project	45	50%
Homework	-	
Laboratory	-	
Other	15	

References:	
[1] IBM WebSphere Business Modeler Documentation [2] Business Process Management Practical Guidelines to Successful Implementations, Second Edition (2008), John Jeston, Johan Nelis, Published by Elsevier Ltd., ISBN: 978-0-75-068656-3 [3] E-Business and E-Commerce Management, 5th edition, Dave Chaffey, Prentice Hall, 2011, ISBN: 978-0-273-70752-3	
Prerequisites:	***Co-requisites*** ***(courses to be taken in parallel as a condition for enrolment):***
Advanced Production Planning and Scheduling System and Project Management Production and Operation Management	Factory Simulation
Additional relevant information:	

Date:
Professional degree, Surname, Name:
Lecturer PhD Eng. Lidia Florentina Parpala