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Faculty of Management
WARSAW UNIVERSITY OF TECHNOLOGY

International Summer School of the Faculty of Management - Process modeling

PROGRAM DESCRIPTION

Table 1. Program of the International Summer School of the Faculty of Management - Process modeling

No.	Course name	Time [h]	ECTS
1	Business Process Management	10	1
2	Business Process Modeling Workshop	15	1
3	Logistics Management	15	1
4	Evaluation of efficiency in the enterprise	15	1
5	Modeling of Production Processes	6	0
6	Modern management methods and concepts in process improvement	15	1
7	Popularization of Polish culture and education in Poland	4	0
	∑	**80**	**5**

1. Business Process Management

The subject of the course is to present the participant with the essence of the process approach in management. In the theoretical module, basic definitions and presentation of the rationale for implementing the process approach in organizations will be discussed. In the practical module, the participant will gain practical knowledge of the application of process management (e.g.: transport area, production area). With the use of the computer program - *FlexSim*. The acquired knowledge will allow the participant to improve professional qualifications in the aspect of analyzing and modeling organizational processes and will expand career opportunities in labour market.

2. Business Process Modeling Workshop

The “Business Process Modeling Workshop” aims to achieve is knowledge in the field of process management, the ability to apply and simulate business processes, describe and develop business process models. The course will start with a theoretical introduction to business process modeling. Students will learn the differences between the functional and

process orientation of a business. The lecture will end with an introduction to the business processes streamlining.
The practical part of the course is carried out in computer laboratories, where students learn the methodology of modeling and simulating processes. Students will start with acquainting with the work environment and working on the structure of the training process. Next, students will supplement the graphic model with process resources and roles necessary for implementing the training process. To eliminate formal errors, it is essential to test the model. Students will simulate the process, the results of the simulation iteration will be compared and analyzed. The adopted methodology allows introducing changes and analyzing various business scenarios.

3. Logistics Management

The goal of the Logistics Management course is to achieve basic knowledge in the fields of logistics and supply chain management. During the course, students will learn about the history and evolution of logistics and supply chain management, from basic methods to modern day, advanced management strategies, and simulation tools used to optimize logistical processes. The course is split into two parts. The first part consists of exercises, during which students will obtain theoretical knowledge about logistics and supply chain management, with the main emphasis put onto the supply, distribution, and production logistics and supply optimalisation methods, and solve specific problems to test their obtained knowledge. The second part consists of learning and practical usage of simulation tools in order to learn how to use them for modeling and optimizing logistical processes, with basic problems to solve.

4. Evaluation of efficiency in the enterprise

The aim of this course is to achieve basic knowledge in the field of effectiveness, productivity, and efficiency. The graduate will know basic definitions, concepts, measurements, and division of efficiency indicators, e.g. ROA, RAI. During the course, students will be introduced to the assessment of the effectiveness of the company's processes, enterprise performance indicators, and productivity indicators. As part of the course, students will also perform practical exercises using the learned indicators. At the end of the course, participants apply various methods and techniques in prepared examples to improve processes and evaluate the impact of the application of methods and techniques on the enterprise. They will calculate indicators before and after changes that they are proposed to implement In specific examples. The graduate can use his knowledge to analyze processes in the organization and can select the appropriate methods and verify the economic effectiveness of the proposed solution

5. Modeling of Production Processes

The aim of this course is to acquire the skill of modeling production processes in the FlexSim program. During other classes, participants will learn the basics of the FlexSim program, and during these few hours, they will show the possibilities of building basic simulation models in the program and improving processes. As part of the course, students will be introduced to the library of objects for building production models, including models using fluid products and logic ProcessFlow. After this course, the graduate will knows and understands the FlexSim

program in production processes which allows him to be an informed user and find their applications in organizations.

6. Modern management methods and concepts in process improvement

The subject covers selected creative methods used in the field of solving and improving models, especially in the production process and related fields, implementing knowledge, skills, and competencies related to the specificity of the issue, in the field of the basic program of production management in selected aspects.

The aim of the course is to show the creative methods used to solve production problems. An overview of those methods and their implementation will be presented during each exercise. The student will be solving the individual problems by implementing the selected creative methods and techniques. The graduate will know and understand methods and tools in the field of solving and improving models, especially in the production process.

7. Popularization of Polish culture and education in Poland

As part of the course, participants will be acquainted with the culture of Poland. They will be able to learn basic phrases in the Polish language and learn about the traditions. In addition, summer school participants will be familiarized with the possibilities of education in Poland, the education system in Poland, and the offer of the Warsaw University of Technology.