



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Business Process Mapping [S1DSwB1>MPB]

Course

Field of study

Data Science in Business

Year/Semester

2/4

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

30

Other

0

Tutorials

0

Projects/seminars

0

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

Student has basic knowledge of organizational management and business operations. They understand the concept of process-based management. Additionally, the student demonstrates analytical thinking, data handling skills, and logical modeling of relationships. A basic knowledge of process visualization methods and performance evaluation principles is also welcome.

Course objective

The aim of the course is to familiarize the students with the concept and development of process management. To provide an understanding of the key objectives and activities related to process management in relation to the specifics of production and service organizations. To acquire the skills to assess, design and map processes in selected production or service organizations.

Course-related learning outcomes

Knowledge:

Characterizes the process approach to organizational management and the stages of mapping and modeling business processes [DSB1_W03].

Describes techniques for creating business process maps and their application in business management

[DSB1_W07].

Explains the impact of business process modeling on organizational efficiency and methods for assessing and improving processes [DSB1_W09].

Skills:

Selects information sources and business process modeling tools, including BPMN [DSB1_U01].

Applies business process modeling methods, developing process maps that include goals, participants, tasks, and value-added elements [DSB1_U02].

Designs and implements processes for analyzing and assessing the effectiveness of business processes, using measurement and audit techniques [DSB1_U08].

Plans and organizes activities related to the documentation and optimization of business processes within the organization [DSB1_U13].

Social competences:

Uses current research and methodologies for business process modeling, considering their practical application [DSB1_K02].

Takes initiatives in optimizing processes and implementing organizational improvements based on process analyses [DSB1_K04].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

- a) in the scope of lectures: based on answers to questions concerning the material covered in previous lectures and short tests checking each time after the discussion of a group of issues has been completed
- b) in the scope of laboratories - based on an assessment of the current progress of tasks in creating a map of the selected process for the organization, each subsequent developed issue is assessed in points.

Summary assessment:

- a) in the scope of laboratories based on: the sum of points collected during the semester for the implementation of subsequent stages of developing the process map and the form and quality of the prepared materials - a submitted final study,
- b) in the scope of lectures: an exam in the form of a multiple choice test, with answers of which at least one is correct; each question is scored on a scale from 0 to 1; the exam is passed after obtaining at least 50% of the points. The exam can be taken after passing the laboratories.

Programme content

The lecture discusses organizational management based on a process approach, including enterprise maturity, types of business processes, process management methodologies, and process mapping. It also addresses the issues of process modeling using BPMN, performance measurement, auditing, and process improvement. It also includes an analysis of the benefits and risks of using BPMN in organizational management. The lab involves developing a process map, including defining the goal, owners, input and output parameters, customers, tasks, participants with authorizations, and measuring the added value of the process.

Course topics

Lecture:

1. The idea of managing an organization based on the process approach. Maturity of enterprises in terms of the process approach.
2. Types of business processes. Process management. The essence and goals of process management.
3. Key methodologies of process management.
4. Principles of creating process maps in an enterprise. Requirements and guidelines of BPR and other methodologies that are the basis for process management.
5. Modeling business processes using Business Processes Modeling Notation (BPMN)
6. Measuring and assessing the effectiveness and efficiency of processes. Auditing and controlling processes. Improving processes in an enterprise.
7. The usefulness of BPMN systems in managing a modern organization - opportunities and threats.

Laboratory:

Design work including the development of the following process map elements:

- process implementation area, its name and purpose
- defining the owner of the main process and sub-processes, as well as supporting processes
- indicating the input parameters of the process
- describing the output parameters of the process - what are the expected final values
- indicating the process clients - who is the recipient of the results/values/effects
- defining the tasks that make up the process along with their alternatives depending on the process flow
- defining the process participants and assigning them appropriate authorizations
- defining the added value of the process and the methods of its measurement

Teaching methods

Lectures of a monographic and conversational nature. Laboratory - project work of a case study nature.

Bibliography

Basic:

1. Drejewicz S., Zrozumieć BPMN. Modelowanie procesów biznesowych, Helion 2012.
2. Piotrowski M., Procesy biznesowe w praktyce. Projektowanie, testowanie i optymalizacja, Helion 2014.

Additional:

1. Dumas M., La Rosa M., Mendling J., Reijers H.A., Gabryelczyk R., Business Process Management, WN PWN, Warszawa 2022
2. Piotrowski M., Notacja modelowania procesów biznesowych - podstawy, BTC, Legionowo 2007
3. Bitkowska A., Zarządzanie procesami biznesowymi w przedsiębiorstwie, Vizja Press & IT, 2009.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00