

UNIVERSITY OF ECONOMICS – VARNA
FACULTY OF INFORMATICS
DEPARTMENT OF INFORMATICS

Adopted by the FC (record № 9/24.04.2024)
Adopted by the DC (record № 10/16.04.2024)

ACCEPTED BY:
Dean:
(Prof. Vladimir Sulov, PhD)

SYLLABUS

SUBJECT: BUSINESS PROCESS MODELING

DEGREE PROGRAMME: Computer Science; MASTER`S DEGREE

YEAR OF STUDY: 6 for other field graduates; SEMESTER: 12 for other field graduates

TOTAL STUDENT WORKLOAD: 210 hours; incl. curricular 60 hours

CREDITS: 7

DISTRIBUTION OF STUDENT WORKLOAD ACCORDING TO THE CURRICULUM

<i>TYPE OF STUDY HOURS</i>	WORKLOAD, hours	TEACHING HOURS PER WEEK, hours
CURRICULAR: incl. <ul style="list-style-type: none">• LECTURES• SEMINARS / LAB. EXERCISES	30 30	2 2
EXTRACURRICULAR	150	-

Prepared by:

1.
(Prof. Silvia Parusheva, PhD)

2.
(Daniela Pencheva, PhD, iCard)

Head of department

of Informatics:
(Prof. Julian Vasilev , PhD)

I. ANNOTATION

Business process modeling is based on modern information technologies for modeling, analyzing and optimizing business processes in organizations. The systems provide an opportunity to automate and reengineer business processes, to increase their efficiency, reduce management costs, etc.

Expected result: formation of knowledge about the nature and importance of business process management systems, used methods, standards and technological infrastructure; building skills for the automation of business processes through business process management systems.

The key competencies that students acquire in the learning process include the following:

- *mathematical competence and competence in the field of exact sciences, technologies and engineering – ability to think logically and model business processes in order to ensure their effective implementation.*

- *digital – ability to apply information and communication technologies in the context of integration and management of business processes.*

II. THEMATIC CONTENT

№	TITLE OF UNIT AND SUBTOPICS	NUMBER OF HOURS		
		L	S	L.E.
Theme 1. The business process as an object of management		5	2	
1.1.	Business Process (BP) Elements. Classification.	3	1	
1.2.	Purposes of process modeling.	-	-	
1.3.	BP life cycle. Interaction between business processes.	2	1	
Theme 2. Role and characteristics of business process management systems (BPMS)		5	-	
2.1.	Process approach in management	2	-	
2.2.	Nature and scope of the BPMS. Advantages.	3	-	
Theme 3. Architecture of Business process management systems		10	18	
3.1.	Modeling of business processes.	4	5	
3.2.	Basic functions and components of BPMS.	6	13	
Theme 4. Types of BPMS		10	10	
4.1.	Integration-centric BPM	4	6	
4.2.	Document-centric BPM	4	2	
4.3.	Human-centric BPM.	2	2	
Total:		30	30	

III. FORMS OF CONTROL:

№	TYPE AND FORM OF CONTROL	Number	extracurricular, hours
1.	Midterm control		
1.1.	Course work	1	40
1.2.	Practical assignment	1	30
1.3.	Case study	1	10
	Total midterm control:	3	80
2.	Final term control		
2.1.	Examination (test)	1	70
	Total final term control:	1	70
	Total for all types of control:	4	150

IV. LITERATURE

REQUIRED (BASIC) LITERATURE:

1. Materials uploaded to the e-learning and distance learning platform eLearn.

RECOMMENDED (ADDITIONAL) LITERATURE:

1. Laguna, M. and Marklund, J. Business process modeling, simulation and design. CRC Press, 3rd Ed., 2019.
2. Dumas, M., La Rosa, M., Mendling, J., Reijers, H. A. Fundamentals of Business Process Management. Springer, 2018.
3. Szelągowski, M. Dynamic Business Process Management in the Knowledge Economy. Creating Value from Intellectual Capital. Springer, 2019.