

**UNIVERSITY OF ECONOMICS - VARNA**  
**MASTER DEGREE STUDIES CENTER**  
**DEPARTMENT „INFORMATICS“**

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**ACCEPTED BY:**

**Rector:**

(Prof. Dr. Plamen Iliev)

**SYLLABUS**

**SUBJECT: “BUSINESS PROCESS MODELING”;**

**DEGREE PROGRAMME: “Computer Science”; MASTER`S DEGREE**

**YEAR OF STUDY: 5;**

**SEMESTER: 9 (same field graduates), 10 (other fields graduates);**

**TOTAL STUDENT WORKLOAD: 210 h.; incl. curricular 60 h.**

**CREDITS: 7**

**DISTRIBUTION OF WORKLOAD ACCORDING TO THE CURRICULUM**

<i>TYPE OF STUDY HOURS</i>	<b>WORKLOAD, h.</b>	<b>TEACHING HOURS PER WEEK, h.</b>
<b>CURRICULAR:</b>		
incl.		
• LECTURES	30	2
• SEMINARS (lab. exercises)	30	2
<b>EXTRACURRICULAR</b>	150	-

Prepared by:

1. ....  
(Assoc. |Prof. Dr. Nadezhda Filipova)

2. ....  
(Assist. Prof. Yanka Alexandrova)

Head of department: .....  
“Informatics” (Prof. Dr. Vladimir Sulov)

## I. ANNOTATION

*Business process modeling is an essential component of business process analysis and improvement efforts. It is also a key activity in information systems development, especially in modern e-business systems. In this context, the course is designed to provide the students with some of the fundamental concepts of business process modeling, such as the importance of modeling, the process of building models, the methods, tools and techniques used in this process, etc.*

*Expected results: understand the benefits of business process modeling; identify the components of business processes; in-depth understanding of the business process modeling methods; practical skills in using modeling tools; acquaint with some best practices in the field.*

## II. THEMATIC CONTENT

No. by row	TITLE OF UNIT AND SUBTOPICS	NUMBER OF HOURS		
		L	S	LS
	<b>1. BASIC CONCEPTS OF BUSINESS PROCESS MODELING (BPM)</b> - need and relevance; importance; essence and basic characteristics; relationship with other concepts	<b>6</b>		
	<b>2. BUSINESS PROCESSES</b> – elements; workflows, process management life cycle; classification; discovering business processes; as-is vs. to-be processes	<b>6</b>		<b>3</b>
	<b>3. BUSINESS PROCESS MANAGEMENT SYSTEMS-</b> implementing and managing business processes	<b>6</b>		<b>3</b>
	<b>4. BUSINESS PROCESS MODELING METHODS</b> – various approaches to BPM; classification of modeling methods	<b>2</b>		
	<b>5. BUSINESS PROCESS MODELING WITH EPC</b> – advantages, core concepts, elements and rules	<b>2</b>		<b>6</b>
	<b>6. BUSINESS PROCESS MODELING WITH BPMN</b> – advantages, core concepts, elements and rules	<b>2</b>		<b>6</b>
	<b>7. TECHNIQUES FOR GATHERING INFORMATION ABOUT BUSINESS PROCESSES</b>	<b>3</b>		<b>3</b>
	<b>8. BUILDING BUSINESS PROCESS MODELS-</b> definition of a business area; stages in the development of the modeling project; case studies	<b>3</b>		<b>9</b>
	<b>Total:</b>	<b>30</b>		<b>30</b>

### III. FORMS OF CONTROL:

No. by row	TYPE AND FORM OF CONTROL	№	Extra-curricular, h.
<b>1.</b>	<b>Midterm control</b>		
1.1.	Course project	1	50
1.2.	Presentation on a hot topic of BPM	1	50
<b>Total midterm control:</b>		<b>2</b>	<b>100</b>
<b>2.</b>	<b>Final term control</b>		
2.1.	Test (open and/or closed questions)	1	50
<b>Total final term control:</b>		<b>1</b>	<b>50</b>
<b>Total for all types of control:</b>			<b>150</b>

### IV. LITERATURE

#### **REQUIRED(BASIC) LITERATURE:**

- 1.Dumas, M. et al. Fundamentals of BPM.Springer, 2013.
- 2.Filipova, N. Conceptual Architecture of Business Process Management Systems. Izvestiya, 2013, issue 2, pages 43-54.
3. Filipova, N. Business Modeling (lecture notes). UE-Varna, 2016.

#### **RECOMMENDED(ADDITIONAL)LITERATURE:**

- 1.Business Process Model and Notation.OMG.<<http://www.bpmn.org/>>.
2. Eisenberg, R. SamsTeachYourself Windows WorkflowFoundationin 24 Hours. PearsonEducation, Inc., 2009.
3. Schedlbauer, M. TheArt of BusinessProcessModeling. Createspace, 2010.
4. Филипова, Н., Ф. Филипов. Бизнес моделиране.“Наука и икономика“, ИУ-Варна, 2009.