

## DESCRIPTION OF A STUDY COURSE – SYLLABUS

<b>Title of a course</b>	Information System for Decision-making Support				
<b>Head of course</b>	PhD Sabrina Šuman, Senior Lecturer				
<b>Study programme</b>	Specialist professional graduate study of Information Technology in Business Systems- Major: Software Engineering in Business Systems				
<b>Status of a course</b>	Elective				
<b>Year of study</b>	2.	<b>Semester</b>	III	<b>ECTS credits</b>	6
<b>Teaching plan (L + E + S+ Pr)</b>	1+2+1+0				
<b>Goals of a course</b>					
Adopt basic terminology and apply business performance management methods through working in selected software tools.					
<b>Conditions for enrolling course</b>					
No conditions					
<b>Learning outcomes on a level of a study programme which includes course</b>					
Outcome 9: Develop a model and run a simulation in business systems. Outcome 15: Analyse and recommend the use of IT tools within a business organization. Outcome 16: Assess the place and role of ICT in the context of organization, management and business processes.					
<b>Expected learning outcomes on a level of a course</b>					
<ol style="list-style-type: none"> <li>1. Explain the need for a systematic mindset in business operations and the establishment of a business intelligence system</li> <li>2. Explain the importance of managing business performance and give examples of key performance indicators.</li> <li>3. Characterize the big data era and list the problems and business needs specific to that era.</li> <li>4. Create data mining models using machine learning algorithms</li> <li>5. Develop a business plan with sensitivity analysis</li> <li>6. Create multi-dimensional interactive business reports</li> </ol>					
<b>Content of a course</b>					
Importance of decision-making. Information systems for management support. Systems for decision support. Modelling as a process of decomposition and problem formalization. Historical outline. Types of systems and classification. System development, special characteristics. Utility measurement. Methods of decision-making. Psychological-sociological problems. Data warehouses. Development methodology of data warehouses. Data mining. Expert systems. Knowledge bases. Modern development.					
<b>Teaching modes</b>	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> auditory exercises <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> distance learning <input type="checkbox"/> field classes		<input checked="" type="checkbox"/> individual assignments <input type="checkbox"/> multimedia and network <input type="checkbox"/> laboratory <input type="checkbox"/> supervisor's work <input type="checkbox"/> other _____		
<b>Comments</b>					
<b>Students' obligations</b>					
<b>Grading, evaluation and monitoring of students' work continuously during lectures and exams</b>					
Grading is based upon evaluation of course's learning outcomes adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.					

**Continuous check-up:**

Outcomes	Written test	Project 1	Project 2	Activity	Threshold	Max
Outcome 1	10 %				5%	10 %
Outcome 2	10 %			10%	10%	20 %
Outcome 3	5 %				2,5%	5 %
Outcome 4		25%			12,5%	25 %
Outcome 5				20%	10%	20 %
Outcome 6			20%		10%	20%
Percentage of ECTS	1,5	1,5	1,2	1,8	-	-
Total	25 %	25 %	20%	30%	50 %	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

**Exam term:**

Outcomes	Theory	Practical assignments	Threshold	Max
Outcome 1	10 %		5%	10 %
Outcome 2	20 %		5%	10 %
Outcome 3	5 %		2,5%	5 %
Outcome 4		25%	2,5%	5 %
Outcome 5		20%	20%	40 %
Outcome 6		20%	15%	30%
Percentage of ECTS	2,1	3,9	-	-
Total	35 %	65 %	50 %	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

**Grading:**

A student has passed the exam if he has acquired at least 50% of anticipated credits of a specific learning outcome.

If a student has passed learning outcomes of all courses, the accomplished credits (percentages) of all passed learning outcomes are being added, while the final grade is defined upon following table:

Range of credits (percentages)	Numerical grade	ECTS grade
90,00 – 100,00	Excellent (5)	A
75,00 – 89,99	Very good (4)	B
60,00 – 74,99	Good (3)	C
50,00 – 59,99	Sufficient (2)	D
0,00 – 49,99	Insufficient (1)	F

**Obligatory literature**

1. Šuman, S., Sustavi poslovne inteligencije, Veleučilište u Rijeci, 2017. Script- Available on course materials.

**Additional literature**

1. Turban, E., Sharda, R., Delen, D., Decision support and business intelligence systems, Pearson (international edition), 9th edition, 2011.



