1.	Course		Business intelligence						
2.	Code		KNI_E7						
3.	Study programme		Computer Science a	nd Engineering PhD study ogramme					
4.	Study programme organized by			FCSE					
5.	Cycle		Third – PhD						
6.	Academic year / semester	7.	7. ECTS credits 7,5						
8	Teacher		Prof d-r Andrea Kulakov						
0	Praraquisitas		Nona						
9.	rierequisites	None							
10.	Enabling the students to analyze and design business intelligence algorithms and apply them in solving problems that occur in the modern company environment. The student will be capable to use business intelligence algorithms for solving real problems. Course syllabus: The course provides understanding of the way people from the business world use information and the reasons behind those approaches. The main channels and business information sources as well as the value and benefits of information, information technologies and artificial intelligence as services to the business world. The following topics will be considered: IT and business strategies, understanding business intelligence in the global world, corporate data warehouse generators, modern leading tools in business intelligence, software and network business intelligence, IT enabled processes and entrepreneurship resource planning, logistics management with IT, user support management and business intelligence, managing the business achievements using IT, business intelligence in e-commerce, business intelligence in commerce and industry, Lean Six Sigma methodology for business process improvements and its relationship to business intelligence, managing and organizing an efficient business intelligence team.								
12.	Classes supported with slide prese software packages, teamwork, case	ntatior studie	ns, interactive teachings, invited guest lectures	ng, lab equipment and other areas, presentations of project					
	works, e-learning materials, forums a	ing materials, forums and consultations.							
13.	Total fund of work hours		7,5 EKTC x 30 h = 225 h						
14.	Available hours distribution $45+30+150 = 225$								
15.	Teaching activities		Theoretical classes	45 h					
			exercises), seminars, team work	30 h					
16.	Other activities		Project tasks	50 h					
			Self study	50 h					
			Homework	50 h					
	Grading								
17.	17.1. Tests			40 points					
	17.2. Seminar work/ project (presenta	50 points							

18.   Grading criteria (points/grade)   to 59 points   5 (five) (F)     18.   Grading criteria (points/grade)   from 60 to 68 points   6 (six) (E)     18.   Grading criteria (points/grade)   from 60 to 68 points   6 (six) (E)     19.   Conditions for attending the final exam   Successful completion of activities 15.1 and 15.2     20.   Language   Macedonian or English     21.   Quality assessment   Internal evaluation and student pools     Literature   Compulsory   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.1.   Efraim Turban, Jay E.   Decision Support and Business Intelligence Systems (8th Edition)   2006     22.1.   Efraim Turban, Jay E.   Decision Support and Business Intelligence Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006     Additional   No. Author   Title   Publisher   Year		17.3.	Activ	e participation		10 points				
18.   Grading criteria (points/grade)   from 60 to 68 points   6 (six) (E)     18.   Grading criteria (points/grade)   from 69 to 76 points   7 (seven) (D)     19.   Conditions for attending the final exam   Successful completion of activities 15.1 and 15.2     20.   Language   Macedonian or English     21.   Quality assessment   Internal evaluation and student pools     Literature   Compulsory   Vear     22.   No.   Author   Title   Publisher   Year     22.   Efraim Turban, Jay E.   Decision Support and Business Intelligence Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006     Additional   No. Author   Title   Publisher   Year		Grading criteria (points/grade)				to 59 points	5 (five) (F)			
from 69 to 76 points7 (seven) (D)18.Grading criteria (points/grade)from 69 to 76 points7 (seven) (D)19.Conditions for attending the final examSuccessful completion of activities 15.1 and 15.220.LanguageMacedonian or English21.Quality assessmentInternal evaluation and student poolsLiteratureCompulsory22.1.No.Author1.Stephen Haag, Maeve Cummings, Amy PhillipsManagement Information Age (6th Edition)22.Efraim Turban, Jay E. Liang, Ramesh ShardaDecision Support and Systems (8th Edition)20063.Selected recent journal and conference papers2006Additional No. AuthorTitlePublisherYear						from 60 to 68 points	6 (six) (E)			
Instruction   Grading criteria (points/grade)   from 77 to 84 points   8 (eight) (C)     from 77 to 84 points   9 (nine) (B)     from 93 to 100 points   10 (ten) (A)     19.   Conditions for attending the final exam   Successful completion of activities 15.1 and 15.2     20.   Language   Macedonian or English     21.   Quality assessment   Internal evaluation and student pools     Literature   Compulsory   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.1.   1.   Stephen Haag, Maeve Cummings, Amy Phillips   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   2.   Aronson, Ting-Peng Liang, Ramesh Sharda   Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006     Additional   No. Author   Title   Publisher   Year	10					from 69 to 76 points	7 (seven) (D)			
from 85 to 92 points   9 (nine) (B)     from 93 to 100 points   10 (ten) (A)     19.   Conditions for attending the final exam   Successful completion of activities 15.1 and 15.2     20.   Language   Macedonian or English     21.   Quality assessment   Internal evaluation and student pools     Literature   Compulsory   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   22.1.   Effraim Turban, Jay E. Aronson, Ting-Peng Liang, Ramesh Sharda   Decision Support and Business Intelligence Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006     Additional   No. Author   Title   Publisher   Year	10.					from 77 to 84 points	8 (eight) (C)			
19.   Conditions for attending the final exam   Successful completion of activities 15.1 and 15.2     20.   Language   Macedonian or English     21.   Quality assessment   Internal evaluation and student pools     Literature     Zeration of activities 15.1 and 15.2     Author     Title     Publisher     Year     Author     Title     Publisher     Year     Author     Title     Publisher     Year     Author     Compulsory     No.     Author     Title     Publisher     Year     Aronson, Ting-Peng     Literature     2.     Efraim Turban, Jay E.     Decision Support and     Business Intelligence     Aronson, Ting-Peng     Literature						from 85 to 92 points	9 (nine) (B)			
19. Conditions for attending the final exam   Successful completion of activities 15.1 and 15.2     20. Language   Macedonian or English     21. Quality assessment   Internal evaluation and student pools     Literature     Compulsory     No.   Author   Title   Publisher   Year     22.1.   Stephen Haag, Maeve Cummings, Amy Phillips   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   Efraim Turban, Jay E.   Decision Support and Business Intelligence   2006     3.   Selected recent journal and conference papers   2006     Additional   No. Author   Title   Publisher						from 93 to 100 points	10 (ten) (A)			
20.   Language   Macedonian or English     21.   Quality assessment   Internal evaluation and student pools     Literature     Compulsory     No.   Author   Title   Publisher   Year     No.   Author   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   Efraim Turban, Jay E.   Decision Support and Business Intelligence Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006	19.	Conditions for attending the final exam				Successful completion of activities 15.1 and 15.2				
21.   Quality assessment   Internal evaluation and student pools     Literature     Compulsory     No.   Author   Title   Publisher   Year     22.1.   1.   Stephen Haag, Maeve Cummings, Amy Phillips   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   2.   Efraim Turban, Jay E. Aronson, Ting-Peng Liang, Ramesh Sharda   Decision Support and Business Intelligence Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006     Additional   Year	20.	Language				Macedonian or English				
Literature   Compulsory     No.   Author   Title   Publisher   Year     1.   Stephen Haag, Maeve Cummings, Amy Phillips   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   Efraim Turban, Jay E.   Decision Support and Business Intelligence   2006     3.   Selected recent journal and conference papers   2006     Additional   Title   Publisher   Year	21.	Quality assessment				Internal evaluation and student pools				
Compulsory   No.   Author   Title   Publisher   Year     1.   Stephen Haag, Maeve Cummings, Amy Phillips   Management Information Systems for the Information Age (6th Edition)   China Machine Press   2006     22.   Efraim Turban, Jay E.   Decision Support and Business Intelligence Liang, Ramesh Sharda   2006     3.   Selected recent journal and conference papers   2006     Additional   Year		Literature								
No.AuthorTitlePublisherYear22.1.1.Stephen Haag, Maeve Cummings, Amy PhillipsManagement Information Systems for the Information Age (6th Edition)China Machine Press200622.2.Efraim Turban, Jay E. Aronson, Ting-Peng Liang, Ramesh ShardaDecision Support and Business Intelligence Systems (8th Edition)20063.Selected recent journal and conference papers2006AdditionalYear			Com	pulsory						
22.1.1.Stephen Haag, Maeve Cummings, Amy PhillipsManagement Information Systems for the Information Age (6th Edition)China Machine Press200622.2.Efraim Turban, Jay E. Aronson, Ting-Peng Liang, Ramesh ShardaDecision Support and Business Intelligence Systems (8th Edition)20063.Selected recent journal and conference papers2006	22.		No.	Author		Title	Publisher	Year		
22.   Efraim Turban, Jay E. Aronson, Ting-Peng Liang, Ramesh Sharda   Decision Support and Business Intelligence Systems (8th Edition)   2006     3.   Selected recent journal and conference papers   2006     Additional   Title   Publisher		22.1.	1.	Stephen Haag, Maeve Cummings, Amy Phillips	M Sys	anagement Information stems for the Information Age (6th Edition)	China Machine Press	2006		
3. Selected recent journal and conference papers   Additional   No. Author   Title   Publisher			2.	Efraim Turban, Jay E. Aronson, Ting-Peng Liang, Ramesh Sharda		Decision Support and Business Intelligence Systems (8th Edition)		2006		
AdditionalNo. AuthorTitlePublisherYear			3.		Sel	lected recent journal and conference papers				
No. Author Title Publisher Year			Add	itional						
		22.2.	No.	Author		Title	Publisher	Year		
22.2. 1.			1.							
2.			2.							
3										