

1.	Course title	Machine Translation		
2.	Course code	SBP-I-02		
3.	Study program	<b>MSC programme – Content based searching</b>		
4.	Unit offering the course	<b>FCSE</b>		
5.	Undergraduate/master/PhD	<b>Master</b>		
6.	Year/semester 1/spring/elective	7. ECTS: <b>6</b>		
8.	Teacher(s)	Igor Trajkovski. Katerina Zdravkova		
9.	Course prerequisites	None		
10.	Goals (competences): Machine translation is automatic translation of text document from one to another natural language, like English and Macedonian. In this course we will work with statistical methods for machine translation. After finishing the course students will know how to develop their own system for translation. Students will be introduced to the methodologies that are used by current best translation systems.			
11.	Course content: Introduction to machine translation, History of machine translation, Machine Learning and machine translation, Evaluation of systems for machine translation, parallel corpuses, language modelling, alignment, translation based on phrase translation, rearrangements of words/phrases. Context based machine translation, Systems for machine translation: Systran, Google Translate, Apertum, OpenLogos, Moses.			
12.	Teaching methods: Lectures supported by slide presentations, interactive lectures, trainings (using lab equipment and software packages), team work, case studies, invited guests and lectures, individual practical assignments presentations, seminar paper, e-learning (forums, consultations).			
13.	Total available time	6 ECTS x 30 hours = 180 hours		
14.	Distribution of the available time	130 + 0 + 50 = 180 hours		
15.	Teaching activities	15.1.	Lectures	130 hours
		15.2.	Training (labs, problem solving), seminar and team work	0 hours
16.	Other activities	16.1.	Project work	15 hours
		16.2.	Self study	15 hours
		16.3.	Home work	20 hours
17.	Grading			
	17.1.	Tests		65 points
	17.2.	Seminar work/project (written or oral presentation)		25 points
	17.3.	Active participation		10 points
18.	Grading criteria		to 59 points	5 (five) (F)
			from 60 to 68 points	6 (six) (E)
			from 69 to 76 points	7 (seven) (D)
			from 77 to 84 points	8 (eight) (C)
			from 85 to 92 points	9 (nine) (B)

		from 93 to 100 points	10 (ten) (A)			
19.	Final exam prerequisites	Successfully completed activities 15.1 and 15.2				
20.	Course language	Macedonian and English				
21.	Quality assurance methods	Internal evaluation and student questionnaires				
22.	Literature					
	22.1.	Compulsory				
		No.	Authors	Title	Publisher	Year
		1.	Philipp Koehn	Statistical Machine Translation	Cambridge University Press	2010
		2.	Nirenburg S., Somers H.	Readings in Machine Translation	The MIT Press	2002
		3.	Wilks Y.	Machine Translation	Springer	2008
	22.2.	Additional				
		No.	Authors	Title	Publisher	Year
		1.	Jean Veronis (Editor)	Parallel Text Processing: Alignment and Use of Translation Corpora	Springer	2000
		2.				
	3.					