

Course Name : The Compilers							
Course Code	Course Type	Regular Semester	Lecture (hours/week)	Seminar (hours/week)	Lab. (hours/week)	Credits	ECTS
CMP 116	B	Spring	3.00	1.00	0.00	3.50	5.00
Lecturer		Kleona Elezi, Msc					
Assistant		Elton Kaziu, Msc					
Course language		Albanian					
Course level		Bachelor					
Description		Compilers is a course that describes the bases of the compilers, functions and processes. the phases of a compiler and its elements. This course has a broader aspect and will introduce the students with the fundamentals of the compilers, their important role they play on transforming the code from a higher programming language to the code known by the machine.					
Objectives							
Core Concepts		Introduction to Compilers Compilers design The stages in which a source program goes through to be translated by the compiler into a language understandable and executable by machines.					
Course Outline							
Week	Topic						
1	Introduction						
2	A Simple Syntax-Directed Translator I						
3	A Simple Syntax-Directed Translator II						
4	Lexical Analysis						
5	Lexical Analysis(Finite Automata, NFA)						
6	Syntax Analysis (DFA)						
7	Review						
8	Midterm						
9	Syntax Analysis (DFA) ys						
10	Syntax Analysis Top-Down Parsing I						
11	Syntax Analysis Top-Down Parsing II						
12	Syntax Analysis Bottom-Up I						
13	Syntax Analysis Bottom-Up II						
14	Syntax Analysis Bottom-Up III						
15	Review						
16	Final Exam						

Prerequisites	The student must attend the course at a minimum rate of 75%.		
Literature	• Alfred V. Aho, Monica S. Lam, Ravi Sethi, Jeffrey D. Ullman, Compilers - Principles, Techniques, and Tools, Second Edition, 2007, Pearson/Addison Wesley		
References	•		
Course Outcome			
1	Njohuri në strukturën e kompilatorëve.		
2	Ndërtimin e kompilatorëve.		
3	Fazat në të cilat kalon një program burim për tu përkthyer nga kompilatori në një gjuhë të kuptueshme dhe të ekzekutueshme nga makinat.		
Course Evaluation			
In-term Studies		Quantity	Percentage
Midterms		1	30
Quizzes		0	0
Projects		1	20
Term Projects		0	0
Laboratory		0	0
Class Participation		1	10
Total in-term evaluation percent			60
Final exam percent			40
Total			100
ECTS Workload (Based on Student Workload)			
Activities	Quantity	Duration (hours)	Total (hours)
Course duration (Including the exam week: 16x Total hours of the course)	16	4	64
Study hours outside the classroom (Preparation, Practice, etc.)	14	4	56
Duties	1	0	0
Midterms	1	0	0
Final Exam	1	1	1
Other	0	0	0
Total Work Load			121
Total Work Load / 25 (hours)			4.84
ECTS			5.00