

## NEU, Department of Computer Information Systems

<b>Course Unit Title</b>	Programming Language I	
<b>Course Unit Code</b>	CIS 205	
<b>Type of Course Unit</b>	Compulsory	
<b>Level of Course Unit</b>	Bachelor's degree	
<b>National Credits</b>	3	
<b>Number of ECTS Credits Allocated</b>	7 ECTS	
<b>Theoretical (hour/week)</b>	2	
<b>Practice (hour/week)</b>	-	
<b>Laboratory (hour/week)</b>	2	
<b>Year of Study</b>	2	
<b>Semester when the course unit is delivered</b>	1	
<b>Course Coordinator</b>		
<b>Name of Lecturer (s)</b>		
<b>Name of Assistant (s)</b>	Bora Oktekin	
<b>Mode of Delivery</b>	Lecturing E-learning activities	
<b>Language of Instruction</b>	English	
<b>Prerequisites and co-requisites</b>	CIS 132	
<b>Recommended Optional Programme Components</b>	Basic background on Algorithm	
<b>Objectives of the Course:</b>		
<p>The objective of this course is to teach students the major elements of the C language. Topics include language syntax, data types, variables and constants, input-output operators, logical, arithmetic and string operations, selective control structures: if-then-else, switch, repetition control structures: while, do while, for loops, functions, parameter passing, arrays, pointers, strings manipulations, structures, file I/O operations, memory allocation operations.</p>		
<b>Learning Outcomes</b>		
<b>When this course has been completed the student should be able to</b>		<b>Assessment</b>
1	After completion of this course students are expected to master basic solving problem skills by using the C programming language.	1
Assessment Methods: 1. Written Exam 2. Assignment 3. Project/Report 4. Presentation 5. Lab. Work		
<b>Course's Contribution to Program</b>		
		<b>CL</b>
1	Apply computer technology to address business information system needs.	5
2	Demonstrate a deeper understanding of at least one area of computing, such as programming, networking, technical support or web technology, enabling the student to gain employment in the information systems field.	5
3	Demonstrate critical thinking in understanding, evaluating and applying technology solutions to real life problems.	4
4	Demonstrate familiarity with e-commerce resources, tools, including web programming, publishing, database management tools.	4
5	Articulate ethical and professional standards to the use of computer information systems and computer based data.	3
6	Effectively use personal, interpersonal and communication skills in team work, time management in projects and self-learning.	4

7	Grow professionally through continuing education, research and development, and involvement in professional activities to recognize the need to engage in continuing professional development and lifelong learning.	4
8	Identify, analyze and develop solutions for information systems-related business problems/opportunities.	4
9	Demonstrate knowledge of current information, theories and models, and techniques and practices in all of the major business disciplines including the general areas in information technologies.	2
CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5: Very High)		

<b>Course Contents</b>			
<b>Week</b>	<b>Chapter</b>		<b>Exams</b>
1.	1, 2	What is C, Basics of Program Writing	
2.	3	Style of Programming	
3.	4	Basic Declarations and Expressions	
4.	5	Arrays, Qualifiers, and Reading Numbers	
5.	6,7	Decision and Control Statements, Programming Process	
6.	8	Control Statements (continued)	
7.	9	Variable Scope and Functions	
8.			Mid-term Examination
9.	10	C Preprocessor	
10.	11	Bit operations	
11.	12	Advanced Types	
12.	13	Simple Pointers	
13.	14	File Input/Output	
14.	15	Debugging and Optimization	
15.			Final Examination
<b>Recommended Sources</b>			
<b>Textbook:</b> Practical C programming, 3 <sup>rd</sup> Edition, Steve Oualline, 1997, O'Reilly Media, Inc. ISBN-56592- -306-5.			
<b>Supplementary Material (s):</b> The C Programming Language, 2 <sup>nd</sup> Edition, Brian W. Kernighan and Dennis M. Ritchie, 1988, ISBN-13: 007-6092003106.			
<b>Assessment</b>			
Attendance & Assignment	10%		
Midterm Exam (Written)	35%		
Quiz (Written)	20%		
Final Exam (Written)	35%		
Total	100%		

<b>ECTS Allocated Based on the Student Workload</b>			
<b>Activities</b>	<b>Number</b>	<b>Duration (hour)</b>	<b>Total Workload(hour)</b>
Course duration in class (including the Exam week)	15	4	60
Tutorials	14	4	56
Assignments	10	2	20
Project/Presentation/Report Writing	1	6	6
E-learning Activities	-	-	-
Quizzes	2	1	2
Midterm Examination	2	1	2
Final Examination	1	2	2
Self-Study	16	4	64
Total Workload			<b>210</b>
Total Workload/30 (h)			<b>7</b>
ECTS Credit of the Course			<b>7</b>