CIT 204 – Programming Languages II Teaching Plan

Course Name	Programming Languages II
Course Code	CIT 204
Course Type	Compulsory course
Course Level	Undergraduate
AKTS Credit	6 ECTS
Course hours per week (Institutional)	3
Practice hours per week	-
Laboratory hours per week	2
Academic Year	2010-2011
Academic Semester	Spring
Course coordinator(s)	
Instruction system	
Medium language	English
Prerequisite	CIT 203 – Programming Languages I
Suggestions related to course	Basic knowledge and experience in C/C++ is required
Training required	N/A
Aim of the course	The major goals of this course are the followings: 1. Teach the principles of computer program design. 2. Developing and understanding computer programs, with particular reference to the visual and object oriented programming paradigm. 3. Developing education applications in windows environment 4. Solving real-time programming problems in visual programming.
Learning outcomes	At the end of this course students should, 1. Describe the main reasons about why it is better to code in an object-oriented way rather than a structured procedural way in computer programming. 2. Describe differences between console and visual programming 3. Understand the processing and iterations on collections of data. 4. Explain the reasons why a programming language needs pointer and string data types. 5. Process and iterate operations on sequence of characters and long sets of complex data types. 6. Access, store, read and write text files through a programming language. 7. Learn to create and solve problems with using their own user defined data types and structures. 8. Design visual programming interfaces and validate data in windows form applications. 9. Understanding of control form elements and its usage in windows form applications. 10. Saving, deleting and updating data in visual programming.
Course Content	

	Week	Topics	
		Theory	**Practice**
Course content per week	1	Review of Programming Languages I (variables, operations, loops, decision making functions, library functions)	Review Exercises
	2	User defined functions and system functions in programming	Function and library function exercises
	3	Arrays and collections in programming	array exercises
	4	Multi-Dimensional arrays and collections	multi-dimensional array exercises
	5	String data type and string operations	string and string operations
	6	Windows Form Applications (differences between visual and structured programming)	Basic functionalities of Visual Studio and visual programming
	7	Midterm exam	
	8	Designing programs with GUI. (Programming Project)	Using messageBox, textBox, labels and comboBox in Windows form applications
	9	Designing programs with GUI.	Using checkBox and radioButton, checkListBox and listBox in Windows form applications
	10	Designing programs with database connections	Using listview and database connections in Windows form applications
	11	Designing programs with database connections using functions	Using dataGridView and database connections in Windows form applications
	12	Programming project presentation	
	13	Quiz	Quiz solution
	14	Review	-
	15	Final exam	
Course book and references :	**Course book:** Beginning Visual C++, Ivor Horton, (March, 2008). **References:** C How to program, Dr. Harvey Deitel, Prentice Hall, 5th Edition (January 2005).		

Evaluation

Labs, pop quizzes and Attendance: 10%
Project: 25%
Midterm exam: 25%
Final exam: 40%

Semester Activities	Number	Contribution percentage to course mark %
Midterm Exam	**1**	**25**
Project	**1**	**25**
Final Exam	**1**	**40**
Quiz	**1**	**5**
Lab work & Attendance	**-**	**5**
TOTAL		**100**

Course Learning, Teaching and Assessment Activities in the Framework Calculation of the workload

Activities	Number	Duration (hour)	Total Workload(hour)
Hours per week (theoretical)	14	3	42
Hours per week (Application)	14	2	28
Weekly study for lectures	14	3	42
Term Project	4	5	20
Quiz Preparation for quiz	4. week 8. week	8	16
Supervision a) Midterm Examination b)Self-study for exam	 1 1	 1 18	19
Final Exam a) Exam b) Test for individual studies	 1 1	 1 18	19
TOTAL WORKLOAD (hour)=186			
AKTS CREDIT COURSE = Total Work Load(hour)/(30 hours/AKTS)= 186/30 = 6.2 = 6			

Programme and learning outcomes

Learning outcomes (LO)	Programme Output (PO)																
	PO 1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO 10**	**PO 11**	**PO 12**	**PO 13**	**PO 14**	**PO 15**	**PO 16**	**PO 17**
LO1	3		3	5					2	5	3	2					
LO2	3		3	4					2	5	3	2					
LO3	3		4	4					2	5	3	2					
LO4	3		4	4					2	5	3	2					
LO5	3		4	4					2	5	3	2					
LO6	3		5	5					2	5	3	5					
LO7	3		5	5					2	5	3	5					
LO8	3		5	5					2	5	3	5					
LO9	3		5	5					2	5	3	5					
L10	3		5	5					2	5	3	5					

*Contribution Level:

1 very low
2 low
3 medium
4 high
5 very high