

Object Oriented Programming (CUE31011)

1. Information on the Programme

1.1. Higher Education Institution	Cihan University Sulaimaniya
1.2. College	Science
1.3. Department	Computer Science
1.4. Field of Study	Object Oriented Programming
1.5. Cycle of Study ¹	1
1.6. Specialization/ Study Programme	Computer Science
1.7. Form of Education	Full Time

2. Information on the Discipline

2.1. Discipline Name				Object Oriented Programming				
2.2. Code				CUE31011				
2.3. Language:				English				
2.4. (Theory) Lecturer				Assistant Lecturer Sadeer Dheyaa Abdulameer				
E-mail:				Sadeer.alatter@sulicihan.edu.krd				
Tel:				-				
2.5. Practical/Seminar/ Laboratory/ Project Lecturer				Assistant Lecturer Sadeer Dheyaa Abdulameer				
e-mail:				Sadeer.alatter@sulicihan.edu.krd				
Tel:				-				
2.6.		2.7		2.8.		2.9.	Content ³	CD
Year of Study	second	Semester	third	Assessment Type ²	Written exam	Discipline Status	Mandatory ⁴	MD

3. Total estimated time (Teaching Hours per Semester)

Total Contact Hours:	52										
Total Self Study Hours:	110										
Total No. Hours:	162										
ECTS:	6.00										
No. of Weeks	Contact Hours					Self-Study					
	Theoretical	Practical	Lab.	Project	Visit	Quiz	Reading	Assignment	Report	Midterm Exam.	Final Exam.
1 st Week (Registration)	-	-	-	-	-	-	-	-	-	-	-
2 nd Week	2	2				2	3		1	10	24
3 rd Week	2	2					3	2			
4 th Week	2	2				2	3		1		
5 th Week	2	2					3	2			
6 th Week	2	2				2	3		1		
7 th Week	2	2					3				
8 th Week	2	2				2	3		1	10	
9 th Week	2	2					3	2			
10 th Week	2	2				2	3		1		
11 th Week	2	2					3				
12 th Week	2	2					3	2	1		
13 th Week	2	2				2	3				
14 th Week	2	2					3		1		
15 th Week (Final Exam.)		-	-	-	-	-	-	-	-	-	
16 th Week (Final Exam.)	-	-	-	-	-	-	-	-	-	-	-
TOTAL	26	26	0	0	0	12	39	8	7	20	24

4. Prerequisites (if applicable)

4.1 Curriculum-Related	Programming Fundamentals
4.2 Skills-Related	Microsoft visual C #

5. Conditions (if applicable)

5.1. For the Theoretical	<ul style="list-style-type: none">-Read and comprehend the textbook material with examples.-Attend all the classes and take notes on class discussions.-Actively participate in class discussions and activities.-Submit all the assignments and reports on deadline.-Pass tests and quizzes.
5.2. For the Practical	All students are normally required to attend the Lab; take part in lectures through applying the exercises on the computer or as quizzes.

6. Cumulated Specific Competences

Professional Competencies	Fundamental of object-oriented programming: functions, global variables and local variables, data types. Functions: passing by reference and passing by type. Static variables and methods. Method overloading and method overriding. Difference between constructor and method. Static class and object concept. Accessors (set and get).
Transversal competences	The course aims to provide sufficient knowledge of object-oriented concepts. Where the student will introduce to methods overloading, method overriding, accessors concept, class and object meaning. Also, the students will learn main usage of constructor and destructor and how to be implemented in practical side.

7. Discipline Objectives (Based on the cumulated specific Competences)

7.1. General Objective	The general objective of this course is to provide students with the foundation of object-oriented programming and to the prepare students for mobile application development and web programming which depend on the concept of classes and objects and how we use class library's create objects from it to use it in the code.
7.2. Specific Objectives	The specific objective is to give the students the skills of how we use the classes and objects in our application and how to implement methods and constructors in our code in such away the facilitate understanding the code

8. Content

Week	8.1. Theoretical-Number of Hours	Teaching methods	Observation
1	Registration		
2	Introduction to object-oriented programming	Lecture, Quiz	1 lecture = 2 hours
3	Object oriented versus procedure oriented, local and global variables, features of object oriented	lecture	1 lecture = 2 hours
4	Abstraction, encapsulation and data hiding	lecture, Quiz	1 lecture = 2 hours
5	Operators and its implementation	lecture	1 lecture = 2 hours
6	Arrays	Lecture, Quiz	1 lecture = 2 hours
7	MIDTERM EXAM 1		
8	Methods (by reference and by value)	Lecture, Quiz	1 lecture = 2 hours
9	Constructor and destructor with examples	Lecture	1 lecture = 2 hours
10	Method overloading with examples	Lecture, Quiz	1 lecture = 2 hours
11	MIDTERM EXAM 2		
12	Method overriding with examples	lecture	1 lecture = 2 hours
13	Structure with examples	lecture, Quiz	1 lecture = 2 hours
14	Accessors with examples	lecture	1 lecture = 2 hours

week	8.2. Practical Works–Number of Hours	Teaching methods	Observation
1	Registration		
2	Introduction to visual C# and its libraries	Lecture	1 lecture = 2 hours
3	Writing simples programs with variables and printing messages	Lecture, assignment	1 lecture = 2 hours
4	Writing classes and apply access modifiers	Lecture	1 lecture = 2 hours
5	Writing program about operators and control statements	Lecture, assignment	1 lecture = 2 hours
6	Writing programs for one dimensional array, two-dimensional array	Lecture	1 lecture = 2 hours
7	MIDTERM EXAM 1		2 hours
8	Writing program about method and how to apply it and call it	Lecture, Quiz	1 lecture = 2 hours
9	Implement concept of constructor and destructor	Lecture, Assignment	1 lecture = 2 hours
10	Writing programs for method overloading	Lecture	1 lecture = 2 hours
11	MIDTERM EXAM 2		2 hours
12	Writing programs for method overriding	Lecture, Assignment	1 lecture = 2 hours
13	Writing programs for structure and how we use it	Lecture,	1 lecture = 2 hours
14	Writing programs for accessors and how we use it	Lecture	1 lecture = 2 hours

Compulsory *bibliography*: Key references:

1. Beginning C# 3.0 an introduction to Object-Oriented Programming, 1st Edition, 2007, by Purdum
2. Microsoft Visual C# 2010 in Introduction to Object Oriented Programming, 4th edition,2011, by Joyce Farrell

***Optional Bibliography*:**

Check available books at the library related to Mathematics

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9. Assessment

Type of Activity	9.1. Assessment Criteria ²	9.2. Assessment Type	9.3. Percentage of the final Grade
9.4. Theoretical	Mid-term (30%)	Exam	%30
9.5. Practical/ Seminar/Laboratory	Final-Exam (40%)	Exam	%40
9.6. Activity during Semester	Quizzes (10%) Assignment (5%) Attendance (5%) Report (10%)	Exam	%30
Minimum performance Standards: programming background			

Theoretical Lecturer	Assistant Lecturer Sadeer Dheyaa Abdulameer
Practice Lecturer	Assistant Lecturer Sadeer Dheyaa Abdulameer

Approved by the Curriculum development Committee:	
1	Asst Prof Dr. Lway Faisal Abdulrazak
2	
3	
Head of the Department/ Dean	Asst Prof Dr. Lway Faisal Abdulrazak