

Application Development (CUE31031)

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	Application Development
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		Application Development						
2.2. Code		CUE31031						
2.3. Language:		English						
2.4. (Theory) Lecturer		Assistant Lecturer Sadeer Dheyaa Abdulameer						
E-mail:		Sadeer.alatter@sulicihan.edu.krd						
Tel:		(+964)-07718822763						
2.5. Practical/Seminar/ Laboratory/ Project Lecturer		Assistant Lecturer Sadeer Dheyaa Abdulameer						
e-mail:		Sadeer.alatter@sulicihan.edu.krd						
Tel:		(+964)-07718822763						
2.6.		2.7		2.8.		2.9.	Content ³	CD
Year of Study	second	Semester	fourth	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		
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	Advanced concept of oop with application development and its life cycle, inheritance concept: single, multilevel, hierarchical and hybrid, exception handling: try-catch. Using built in libraries and manipulate it in building applications.
Transversal competences	The course aims to provide sufficient knowledge of advanced object-oriented in application development field. Where the student will learn libraries and how they use it in application development. The student will have experience to deal with exception handling and how to use the multi classes with inheritance in building the application and integrate it to compile it and then run it.

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 knowledge of advanced object-oriented programming and its role in application development. the course will enable student to be familiar with concept of classes and objects and how we use class library's create objects from it to use them in applications. Also, the student will learn error handling.
7.2. Specific Objectives	The specific objective is to give the students the skills and knowledge of writing application and programs in such a way that student will understand the concepts of classes and object and how they are integrating to each other to run program/application and how to handle the errors during application development process.

8. Content

Week	8.1. Theoretical-Number of Hours	Teaching methods	Observation
1	Registration		
2	Introduction to application development	Lecture	1 lecture = 2 hours
3	Two-dimensional array with list	Lecture, assignment	1 lecture = 2 hours
4	polymorphism	lecture	1 lecture = 2 hours
5	Statis and default constructor	Lecture, assignment	1 lecture = 2 hours
6	Parametrized functions with constructors	Lecture	1 lecture = 2 hours
7	MIDTERM EXAM 1		
8	Introduction to inheritance and its usage	Lecture, Quiz	1 lecture = 2 hours
9	Single, multi-level, hybrid inheritance	Lecture, assignment	1 lecture = 2 hours
10	Interface concept with UML	Lecture	1 lecture = 2 hours
11	MIDTERM EXAM 2		
12	Abstract class and abstract method	Lecture, assignment	1 lecture = 2 hours
13	Xamarin in application development	lecture	1 lecture = 2 hours
14	Exception handling try and catch	lecture	1 lecture = 2 hours

week	8.2. Practical Works–Number of Hours	Observation
1	Registration	
2	Lecture	1 lecture = 2 hours
3	Lecture, assignment	1 lecture = 2 hours
4	Lecture, Quiz	1 lecture = 2 hours
5	Lecture	1 lecture = 2 hours
6	Lecture, Quiz	1 lecture = 2 hours
7	MIDTERM EXAM 1	2 hours
8	Lecture, Quiz	1 lecture = 2 hours
9	Lecture, Assignment	1 lecture = 2 hours
10	Lecture, Quiz	1 lecture = 2 hours
11	MIDTERM EXAM 2	2 hours
12	Lecture, Assignment	1 lecture = 2 hours
13	Lecture, Assignment	1 lecture = 2 hours
14	Lecture, Assignment	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.
- 3- Xamarin with Visual Studio: Launch your mobile development career by creating Android and iOS applications using .NET and C# by Alessandro Del Sole.

Optional Bibliography:

Check available books at the library related to fundamental of object oriented and other application development books

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