Object Oriented Programming (OOP) ()

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	OOP
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	OOP
2.2. Code	
2.3. Language:	English
2.4. (Theory) Lecturer E-mail: Tel:	Assistant Lecturer Ardalan Husain Awlla **ardalan.husain@sulicihan.edu.krd** (+964)-07702452429
2.5. Practical/Seminar/ Laboratory/ Project Lecturer e-mail: Tel:	Assistant Lecturer Ardalan Husain Awlla **ardalan.husain@sulicihan.edu.krd** (+964)-07702452429

2.6. Year of Study	First	2.7 Semester	First	2.8. Assessment Type[2]	Written exam	2.9. Discipline Status	Content[3]	CD
							Mandotary[4]	MD

3. Total estimated time (Teaching Hours per Semester)

Total Contact Hours:	52
Total Self Study Hours:	110
Total No. Hours:	162
ECTS:	06

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

4. Prerequisites (if applicable)

4.1 Curriculum-Related	Introduction to OOP
4.2 Skills-Related	Understanding of basic programming concepts such as variables, data types, loops, conditionals, and method.

5. Conditions (if applicable)

5.1. For the Theoretical	-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	Professional competencies in OOP cover the capability to design, develop, and keep scalable and active object-oriented programming by applying core OOP concept like encapsulation, inheritance, polymorphism, and abstraction. Competency also require effectively using design patterns, stick to solid principles, and writing clean, maintainable code. skills in debugging and testing.
Transversal competences	Transversal competencies in OOP cover the capability to put in OOP idea to different problems, prepare to new challenges, and cooperate effectively with others in a coding environment. Strong advice skills are critical for describe your code and working with a team.

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

7.1. General Objective	To get a strong understanding of Object-Oriented Programming (OOP) concept and techniques, allow the development of commutable, maintainable, and scalable software solutions.
7.2. Specific Objectives	• **Understand basis OOP Concepts:** Learn the basic concept of OOP, including encapsulation, inheritance, polymorphism, abstraction and Constructors. • **implement OOP in Programming:** Expand the ability to design and implement classes, objects, and interfaces to solve real-world problems. • **Code Reusability and Maintainability**: Use inheritance and polymorphism to write reusable and maintainable code. • **Enhance Group Cooperation**: Learn to work successfully in a group by sharing and integrating OOP-based code.

8. Content

Week	8.1. Theoretical-Number of Hours	Teaching methods	Observation
1	Registration		
2	Review of Basic Programming	lecture	**1 lecture = 2 hours**
3	OOP Concepts	lecture	**1 lecture = 2 hours**
4	Constructor	lecture	**1 lecture = 2 hours**
5	Access Modifiers	Lecture	**1 lecture = 2 hours**
6	Encapsulation	Lecture	**1 lecture = 2 hours**
7	MIDTERM EXAM 1		
8	Inheritance	Lecture	**1 lecture = 2 hours**
9	Polymorphism	Lecture, Quiz	**1 lecture = 2 hours**
10	Abstraction	Lecture	**1 lecture = 2 hours**
11	**MIDTERM EXAM 2**		
12	Interface	lecture	**1 lecture = 2 hours**
13	Exception Handling	lecture	**1 lecture = 2 hours**
14	Package	lecture	**1 lecture = 2 hours**

week	8.2. Practical Works–Number of Hours	Observation
1	Registration	
2	Review Practical Basic of Programming	**1 lecture = 2 hours**
3	Implement Constructor concept	**1 lecture = 2 hours**

4	Implement of Private and Public Fields and Methods	**1 lecture = 2 hours**
5	Implement of Set and Get Methods	**1 lecture = 2 hours**
6	Implement of Inheritance	**1 lecture = 2 hours**
7	**MIDTERM EXAM 1**	**2 hours**
8	Implement of Abstraction	**1 lecture = 2 hours**
9	Implement of Polymorphism (Overloading and Overwriting)	**1 lecture = 2 hours**
10	Implement of Abstract Class and Abstract method	**1 lecture = 2 hours**
11	**MIDTERM EXAM 2**	**2 hours**
12	Implement of Exception Handling (Try, Catch and Finally)	**1 lecture = 2 hours**
13	Implement of Package Handling	**1 lecture = 2 hours**
14	Review	**1 lecture = 2 hours**

Compulsory bibliography: Key references:

1. C# Programming From Problem Analysis to Program Design.

2. object-oriented-programming-using-c-sharp.

Optional Bibliography:

C# OOP by w3schools

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: basic knowledge of hardware and software with basics of java language.

Theoretical Lecturer	**Assistant Lecturer Ardalan Husain Awlla**
Practice Lecturer	**Assistant Lecturer Ardalan Husain Awlla**

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