

Ministry of Higher Education & Scientific Research

University of Anbar

College of Computer Science
and Information Technology

Computer Networks Systems Department



كلية علوم الحاسوب وتكنولوجيا المعلومات

وزارة التعليم العالي والبحث العلمي

جامعة الأنبار

كلية علوم الحاسوب وتكنولوجيا المعلومات

قسم أنظمة شبكات الحاسوب

Department of Computer Networks Systems

Course Description Form

Course Title: Object Oriented Program 2

Course Code:

Semester: II

Level: B.Sc.

Class: Second

Academic Year: 2022/2021

Course Instructor: Dr. Sumaya Abdulla Hamad

Academic status: Instructor

Place of work: College of Computer Science/ Computer Networks
System Department

Credit Hours: Seven (7)

Instructor Office Hours: Ten (10)

E-mail (Official): sumayah.hamad@uoanbar.edu.iq

Mobile Number: 07807987722



Objectives:

- The student's acquisition of the concept of entity programming, classes, and objects, and how to deal with them.
- Clarify the concept of classes, what are the functions and properties of them, and the objects of each class.
- Giving the student experience in dealing with objects and classes and the distribution of properties and functions.
- The study of structured programming, entity programming and what is known as object-oriented programming, knowledge of injunctions and functions to prepare the student to know how to write a set of commands, knowing what are injunctions, how to build classes and objects, what the class has of properties and functions, how to build several classes and several objects, and how properties are inherited between them.

1. Course Description:

A: Knowledge and Understanding

- A1. Gain the ability and skill to distinguish and deal with program instructions and functions of entity programming.
- A2. Acquire the skill of distinguishing between objects, classes and functions and linking them.
- A3. Dealing with the attributes and characteristics of each class and programming functions.

B. Subject-specific skills

- B1. summer training
- B2. Scientific Reports

C. Thinking Skills

- C1. Develop the student's ability to work on the duties and deliver them on time.
- C2. Programmatically analyze the problem and find solutions based on the expected results.
- C3. Develop the student's ability to dialogue and discussion.

D. General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Develop the student's ability to deal with technical means.
- D2. Develop the student's ability to deal with the Internet.
- D3. Develop the student's ability to deal with multiple media.
- D4. Develop the student's ability to dialogue and discussion.



2. Methods of Teaching:

- Management of the lecture in an applied manner linked to the reality of daily life to attract the student to the topic of the lesson without moving away from the core of the topic so that the material is flexible and capable of understanding and analysis.
- Assigning the student some group activities and duties.
- Allocating a percentage of the grade for daily assignments and tests.
- Sudden daily and continuous weekly tests.
- Exercises and activities in the classroom.
- Guide students to some websites to benefit from them.

3. Assessment Method:

- Active participation in the classroom is evidence of the student's commitment and responsibility.
- Commitment to the deadline in submitting assignments and research.
- The quarterly and final exams express commitment and cognitive and skill achievement.
- Presentation of activities

Term Tests	Laboratory	Quizzes	Project / Activity	Final Exam
25 %	15 %	5 %	5 %	50 %

4. Recommended Text Books and References:

- A. **Textbook:** Object-Oriented Programming in Python Documentation, Release 1, University of Cape Town and individual contributors, Nov 15, 2017
- B. **Other References:** pdf files lectures , Internet Recources.

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كلية علوم الحاسوب وتكنولوجيا المعلومات

وَزَارَةُ التَّعْلِيمِ الْعَالِيِّ وَالْبَحْثِ الْعِلْمِيِّ

جَامِعَةُ الْأَنْبَارِ

كَلِيَّةُ عِلْمِ الْحَاسِبِ وَتِكْنُولُجِيَا الْمَعْلُومَاتِ

قِسْمُ أَنْظِمَةِ شَبَكَاتِ الْحَاسِبِ

Lecture Schedule:

Weeks	Topics
Week 1	Python - Object Oriented Programming: Introduction to Operator Overloading
Week 2	Python - Object Oriented Programming: Operator Overloading Using Member Functions
Week 3	Python - Object Oriented Programming: Base Class Access Control
Week 4	Python - Object Oriented Programming: Using Public, Protected, Private Members
Week 5	Python - Object Oriented Programming: Introducing Inheritance
Week 6	Python - Object Oriented Programming: Inheriting Multiple Base Classes
Week 7	Python - Object Oriented Programming: Constructors, Destructors, and Inheritance
Week 8	Python - Object Oriented Programming: Passing Parameters to Base Class Constructors
Midterm Exam	
Week 9	Python - Object Oriented Programming: Using Public, Protected, Private Members of the Parent Class
Week 10	Python - Object Oriented Programming: Method Overriding in Python Inheritance
Week 11	Python - Object Oriented Programming: Composition in Python
Week 12	Python - Object Oriented Programming: Multilevel Inheritance
Week 13	Python - Object Oriented Programming: Hierarchical and Hybrid Inheritance
Week 14	Python - Object Oriented Programming: Polymorphism
Week 15	Python - Object Oriented Programming: Final Exam