Object Oriented Paradigms

College Requirements

CSCR2205

Welcome to Object Oriented Paradigms!

- Syllabus
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1. Introduction

Welcome 2nd Year CS Students

- Instructor:

  Uz. Iman Siddig Adam Abdalla

- Email:

  imanishappy@yahoo.com

2. Course Structure

- **Lectures:** 20 hours (2 Hours per week)
- **Labs:** 20 hours (2 Hours per week)
- **Timetable**
  - **Lectures:** Thursday 8:00 -10:00.
  - **Lab** s: Monday 8:00
- **Contact Details**
    - imanishappy@yahoo.com
- Slides and board.
- Prefer interactivity in the lecture.
  - Bonus point.

3. Course Description

- This Course Covering
  - Object-Oriented concepts and principles.
  - Classes, Objects .
  - Inheritance and polymorphism.
  - Exception handling.
  - I/O and file processing.
  - Graphical user interface (GUI).

4.Prerequisites

1. Introduction to Computing,
2. Programming Fundamentals.
3. Java Programming Language.

5.Goals of the course

The emphasis of this course is on techniques of program development within the object-oriented paradigm. Topics include **Objects, Classes, Inheritance, Polymorphism , Exception Handling, GUI,** and basic concepts of **software development.** The **Java** programming language is used as the teaching for this course.

6.Course Outline

1) Introduction & Course Overview.
2) Introduction To Java Programming.
3) Object-oriented Concepts And Principles.
4) Object-oriented Design Process, Classes, Methods, Encapsulations.
5) Constructors And Destructors, Overloading.

Midterm (30/6/2023)

6) Interface And Polymorphism.
7) Exception Handling.
8) I/O And File Processing.
9) Graphical User Interface (GUI).

7.Learning Outcomes

- By the end of this course the student will be able to:
  1. Name, explain and apply the core concepts and constructs used in object-oriented programming.
  2. Develop small programs, or components of larger ones, or modify existing ones, to solve clearly defined programming problems.
  3. Given a clearly described component, develop a test set and test code for the component.

7.Learning Outcomes (Cont)

- By the end of this course the student will be able to:
  - Use code review and debugging tools to identify the location of a fault in an erroneous program. (Handle Exception).
  - Write good program documentation.
  - Design user interface (GUI).

8.Course Materials

1. H.M. Deitel , P.J.Deitel, "Java How To Program" 9Th Edition.
2. Savitch , Mock, “on the level of Absolute Java” 5th
3. Cay S. Horstmann, Gary Cornell “Core Java Fundamentals” Volume I .

9.Assessment

- Final semester examinations 70%.
  - 50% Final exam (Paper).
  - 20% Final lab exam or project.
- Continuous assessment (CA) 30%
  - 10% Theoretical.
  - 20% Practical (Lab).
- Continuous Assessment (of Theoretical) 10%
  - mid-term exam.
  - quizzes,
  - Seminars.

No	Assessment	Assessment Method	Percentage from the Final
1	Project1	Java Programming	5%
2	Project2	Object-Class	10%
3	Project3	Object-Oriented design	10%
4	Project4	I/O and file processing	5%
5	Project5	GUI	10%

Finally

- Hope you will enjoy this course.
- You have to work hard to catch this course.
- The Laboratory work can be enjoyable to all of you.
- The INTERACTIVE lectures help us to benefit from the course.