Module Title: Object-Oriented Analysis
Module Code: CIM2566

Duration: 15 weeks

Class-Contact Hours:
Lecture 22.5 hours
Tutorial/Laboratory 22.5 hours

Assessment Scheme:
Continuous Assessment 50%
- Assignment 20% (2 Assignments)
- Tutorial 10% (5 small Exercises)
- Test 20% (2 Tests)
Examination 50%

Module Rationale/Aims:
- to introduce the concept of object-oriented technologies;
- to make students aware of the benefit of object-oriented technologies;
- to enable students to take an object-oriented approach in software development;
- to further develop object-oriented approach.

Learning Objectives:
Students will be able to:
- appreciate the benefits of object-oriented technologies;
- understand the processes involved in object-oriented system analysis;
- perform systems analysis using an object-oriented approach.

Recommended References:


Key Content Area:

Section 1 Object Concepts
- Classes and Objects
- Methods and Messages
- Abstraction
- Encapsulation
- Inheritance
- Polymorphism
- Interface

Section 2 Requirements
- Use-Case Modeling
- Business Modeling

Section 3 Analysis
- Use Case Realization
- Structural Modeling
- Behavioral Modeling
- Operation Contracts

Teaching and Learning Strategies:

This unit puts emphasis on the application of the object-oriented concepts and techniques in the software development life cycle using Unified Modeling Language (UML) as the modeling language and Unified Process (UP) as the development methodology.

Self-assessed tutorial exercises may be used in the initial stage to ensure the basic concepts are acquired. In the later stage, case studies may be used to reinforce the theoretical aspects of the analysis workflow. The laboratory sessions may be used to provide hands-on experience in using some CASE tools which support UML.