KELDON 2020/2021

FACULTY	HITM/PROFESSIONAL PROGRAM
PROGRAMME	
DEPARTMENT	COMPUTER ENGINEERING
COURSE TITLE	INTRODUCTION INTO OBJECT MODELING (UML)
COURSE CODE	
CREDIT VALUE	
CREDIT HOURS	
LEVEL	II
SEMESTER	1st
INSTRUCTOR'S name	Mr. Shiynsa Charles Lwanga
CONTACT: TEL, EMAIL	(+237) 675946657, shiynsacharlesl@yahoo.com
COURSE DESCRIPTION OR SYNOPSIS	This course deals with UML as a modeling language. Specifically, it deals with all the various UML diagrams
COURSE OBJECTIVES	**By the end of this course, students should be able to** ➢ Define basic terms used in OOM (attributes, object, association, aggregation etc) ➢ Distinguish between UML and other methodologies use for scientific works ➢ List and explain the various structural and behaviourial things in UML ➢ Practically design the class diagram for case study ➢ Practically design the use case diagram for case study ➢ Practically design the interaction diagram for case study ➢ Practically design the state machine diagram for case study ➢ Practically design the activity diagram for case study ➢ Master object oriented design concepts ➢ Automatic generating source codes (.sql codes) from conceptual and logical data models ➢ Carry out a workshop on object oriented software engineering
EXPECTED OUTCOME	**After a successful completion of this course, students' will be able** ➢ Define basic terms used in OOM ➢ Distinguish between UML and other methodologies like MERISE ➢ Draw and differentiate between structural and behaviourial things in UML ➢ Practically relate real life reality like analyzing a hospital or school management system by drawing its UML diagrams, interpreting and give a blue print of a software to manage such a system ➢ Automatic generating source codes (.sql codes) from conceptual and logical data models ➢ Educate others via a workshop on object oriented software engineering
WEEKS (UNITS)	TOPICS
1	GENERAL INTRODUCTION ➢ The course objectives ➢ Course outline and chapter layout
2	Chapter 1 ➢ Basic techniques of modeling computer systems ➢ Overview of Prominent Object-oriented Methodologies
3	Chapter 2 ➢ Introduction to UML (Unified Modeling Language)

4	Chapter 3 ➤ Overview of the development process
5	Chapter 4 ➤ Study of the various UML diagrams (structural and behavioral diagrams)
6	Chapter 5 ➤ Class Diagram (attributes, association, aggregation, composition, generalization, parameterized classes)
7	Chapter 6 ➤ Use Case diagram.
8	Chapter 7 ➤ Interaction diagrams (sequence diagram, collaboration diagram).
9	Chapter 8 ➤ State Diagram and Activity Diagram.
10	Chapter 9 ➤ Introduction to object-oriented design (inheritance, encapsulation, polymorphism, abstract interfaces, parameterized types).
11	Chapter 10 ➤ Design patterns in object-oriented design modeling of the source code. Modeling executable versions.
12	Chapter 11 ➤ Workshop on object oriented software engineering

Mode of evaluation

Attendance 5%

Continuous assessment 25%

Final semester exam 70%

Nature of the course: 60% practical and 40% theory

Textbook: UML tutorial.pdf

Website: tutorialpoint.com

Tools: E-draw, Power design, MS visio, Windesing