FAKULTI TEKNOLOGI DAN KEJURUTERAAN

PROGRAM	**Diploma in Information Technology (System Support)**
COURSE NAME	**OBJECT ORIENTED PROGRAMMING**
COURSE CODE	**DTC 3123**
CREDIT HOUR	**3**
SYNOPSIS	This course introduces students to the knowledge of object-oriented technology to equip students with the concept of object oriented programming using Java language. This course introduces student to write, compile and run Java program, make effective use of some of the standard packages, write object-oriented code using classes and objects, inheritance and polymorphism.
COURSE STRUCTURE	
CHAPTER	**TOPICS**
1	**Topic 1: Introduction To Class and Object** **Explain the importance of using the OBE for courses** 1.1 Knowing the Class, Object and Instance Variables. 1.2 Declaring Class and create the class 1.3 Declaring Method with Parameter 1.4 Differentiate Instance Variable, Set Method and Get Method 1.5 Define primitive data and reference 1.6 Create Object with Constructor

2	**Topic 2: Introduction To Class And object (Advanced)** 2.1 Determine the names, purposes and characteristics of; 2.1.1 Access Control to the class member 2.1.2 'This' Reference 2.1.3 Constructor 2.1.4 without Default 2.1.5 Arguments 2.1.6 Static class member 2.1.7 Abstraction and Encapsulation 2.1.8 Create Package,Package Access
3	**Topic 3: Inheritance** 3.1 Identify Inheritance Concepts 3.2 Explain Super Class, Sub Class and protected members 3.3 Relationship between Super Class and Sub Class 3.4 Constructor in Sub Class
4	**Topic 4: Polymorphism** 4.1 Introduction 4.2 Identify Polymorphism 4.3 Concept 4.4 Abstract Class and Method 4.5 Determine Final Method And Class
5	**Topic 5: GUI Components** 5.1 Introduction 5.2 Swing Components
6	**Topic 6: Exception Handling** 6.1 Introduction 6.2 Explain the definition Exception Handling 6.3 Hierarchy Java Exception 6.4 'Finally' Block

7	**Topic 7: Introduction To Java Applets** 7.1 Introduction 7.2 Create Java Applets 7.3 Life Cycle Applets Method 7.4 Create Instance Variable with Init Method
8	**Topic 8: Multithreading** 8.1 Introduction 8.2 Describe Thread Life Cycle 8.3 Identify Thread priorities and thread scheduling 8.4 Create and implement the threads 8.5 Explain Thread synchronization
References:	1. Karoly Nyisztor, Monika Nyisztor (2018). UML and Object-Oriented Design Fundamentals; 1st edition 2. Andrea Chiarelli (2016). Mastering JavaScript Object-Oriented Programming. PACKT Open Source.