# Course Content – Module-2-Object Oriented Programming and UML

## OOP:

* What is OOP?
* Object
* class
* Attributes
* Methods and Messages
* Encapsulation
* Abstraction: Data and Functionality
* Inheritance
* Types of Inheritance
* Polymorphism: Dynamic and Compile time
* Constructors and Destructors
* Aggregation and Specialization
* Abstract class
* Interfaces
* Cohesion and coupling
* Object-oriented metrices
* Static data types and methods
* Advantages of Objects

UML:

* Introduction to UML
* Advantages of UML
* Why model
* Principles of Modelling
* Visualizing, Specifying and Constructing
* Building blocks of UML
* Different types of UML diagram
* Use Case diagram
* Class diagram
* Sequence Diagram
* Collaboration Diagram
* State Diagram
* Component Diagram