**Software Development Methodologies Software Engineering**

**Session 1:**

**Introduction to software engineering**

* Software Process
* Software Process Model
* Software Product
* Importance of Software engineering
* Software Development Life Cycles

**Session 2:**

**Requirements Engineering**

* Types of Requirements
* Steps involved in Requirements Engineering
* Requirement Analysis Modelling

**Session 3:**

**Requirements Engineering**

* UML
* Use cases Hands on
* Use Case Diagrams Hands On
* DFD Diagrams   Hands On

**Session 4:**

* ER Diagrams
* Class Diagrams
* WireFrames
* Assignment usecase creation

**Session 5:**

* Hands on – Design models
* Usecase creation
* ER Diagram
* Class Diagram

**Session 6:**

* Hands on – Design models
* Usecase creation
* ER Diagram
* Class Diagram

**Session 7:**

**Design and Architectural Engineering**

* Characteristics of Good Design
* Function Oriented vs Object Oriented System
* Modularity, Cohesion, Coupling, Layering
* Ux vs UI

**Session 8:**

**Introduction to Agile development model**

* Agile development components
* Benefits of Agile
* Terminologies – Projects, Sprints, stories, tasks, subtasks, bugs, testcases, defect lifecycles
* Introduction to different tools used for agile web development
* Scrum and Extreme Programming

**Session 9:**

**Programming Principles**

* Coding Conventions
* Object Oriented Analysis and Design
* Quality Triangle

**Session 10**

**Introduction to Atlassian Jira**

* Add Project
* Add Tasks and sub-tasks
* Create sprints with tasks
* Jira API integration
* Story Lifecycle