

## **986 - WestLake Capstone: Object Oriented Analysis & Design (OOAD)**

### **Complex System Development**

- Advent of Complex Systems
- Complex System Characteristics
- Building Complex Systems

### **Object Oriented Programming**

- History of OO Programming
- Principles of OO Programming
- Object Oriented Programming Concepts
- Inheritance Best Practices

### **Modelling Complex Systems**

- Steps to Modelling complex systems
- Software Development Lifecycles
- Software Engineering Process

### **Introduction to Unified Software Process**

- History of USP
- USP Workflows
- USP Phases
- Instances of USP

### **Unified Modelling Language**

- History of UML
- Key UML Concepts
- Class diagrams
- Deployment diagrams
- Package diagrams
- Activity diagrams
- Sequence diagrams

### **Modeling Approaches**

- UML Modelling approaches
- UML Centric approach
- USP Approach
- Architectural Approach

## Project (lab)

- Project description
- Project deliverable definitions
- Project review