Software

- Meets customer requirements
- Dependable and secure
- Efficient
- Maintainable
- Primarily developed by more than 2 people

Software Engineering uses a structured set of activities

- Specification (Requirements)
- Design (Look and Feel, Code Architecture)
- Implementation (Coding)
- Validation (testing)
- Evolution (maintenance)

1. Primarily Focused on Two Software Development (Waterfall)
2. Iterative Development (agile)

3 software process models

1. Waterfall model
    a. Pland driven model
    b. Separate and distinct phases of specification, design, implementation, etc.
2. Incremental model
    a. Iterative model
    b. Phases of development are interleaved in time
3. Integration and Configuration
    a. Plan driven or incremental

Two main drawbacks to Waterfall

1. Difficulty in handling change
2. Each phase must be completed before work begins on next

Waterfall Benefits

1. When requirements are well understood and few changes anticipated
2. Large engineering projects where many teams work on the project

Benefits of Incremental Development

1. Accommodates customer requirement changes
2. Customers involved in process and provide feedback
3. More Rapid Delivery of useful software

Drawbacks of iterative method

1. More Difficult to manage
2. System Structure degrades over time