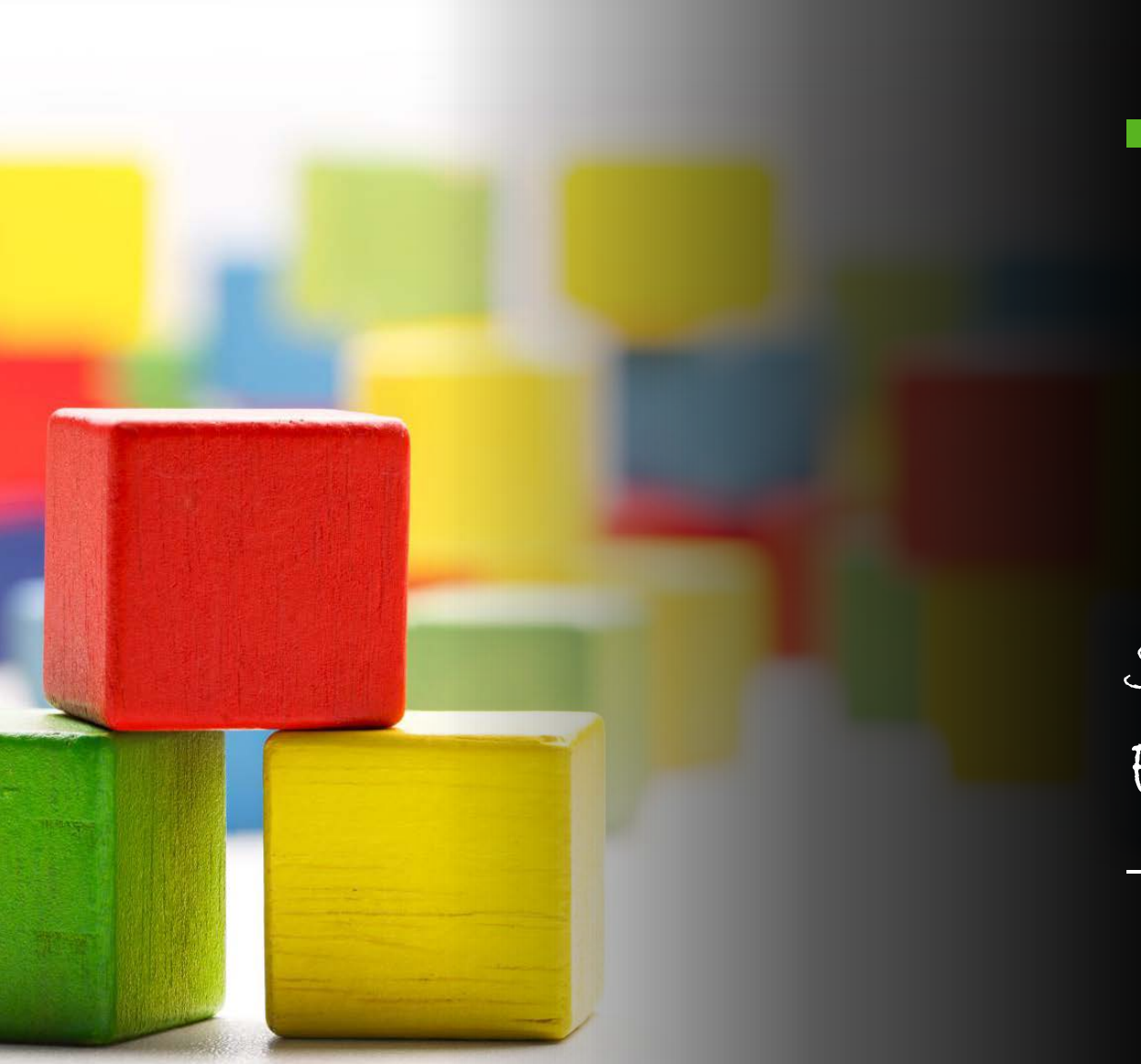


Software Engineering

Dr. Arijit Karati

Contents of the slides are prepared based on the materials from web and textbooks. It is stated that this material will be used to make the students aware of the topics and practiced for non-profit purposes.

Syllabus for Midterm & Discussion

Syllabus

Introduction	Software Life Cycle Models	Software Project Management	Requirements Analysis And Specification
Software Design	Function-oriented Software Design	Object Modelling Using UML	Object-oriented Software Development

Discussion

[Some of the important topics]

- Engineering Practice is better than traditional approaches
- Abstraction + Decomposition
- Programs + Software
- How Computer Systems Engineering is used to complete a project
- Various Design Techniques
- Exploratory style **vs** Modern software development practices

Discussion

[Some of the important topics]

- SDLC with its characteristics and benefits
- Feasibility studies by using SDLC
- SRS (GOOD and BAD)
- Decision table vs Decision tree
- How Requirements Gathering helps to formulate SRS
- Functional Requirements vs Non-functional Requirements

Discussion

[Some of the important topics]

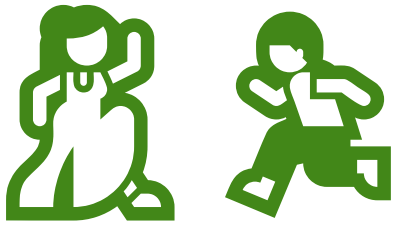
- Module requirements (why, how)
- Details of Cohesion and Coupling
- Advantages of Functional Independence
- Modular Design vs Layered Design
- Object-Oriented vs Function-Oriented Design
- SA vs SD methodology
- Details of DFD (with various symbols, case study)
- Importance of Data Dictionary

Discussion

[Some of the important topics]

- Class vs Objects
- Different Types of Relationships Among Classes
- Abstraction vs Encapsulation
- Polymorphism
- Static vs Dynamic Binding (with example)
- Advantages of Object-Oriented Development
- UML

--- Only a few topics are mentioned here. It doesn't mean that these are only the question for the midterm exam.

Over... 

Good Luck !!