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BCS-051: Introduction to Software Engineering

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Objectives

- **Develop SRS as per any of the existing standards**
- **Know various functional and object oriented modeling & design techniques**
- **Know various testing techniques**
- **Know different SDLC models**
- **Know the concepts of Software Project Management**

Block-1 : Development of SRS

- Unit-1: Characteristics of SRS
- http://en.wikipedia.org/wiki/Software_requirements_specification
- <http://www.microtoolsinc.com/Howsrs.php>
- Download IEEE SRS template by Google
- www.youtube.com/watch?v=b8NvYoWbgjE (Video)

B1 U2: Function Oriented Modeling

- Video on DFD

(www.youtube.com/watch?v=KA4rRnihLII)

- Video on ERD

(www.youtube.com/watch?v=q1GaaGHHAgM)

- PPTs on FOM

(www.vutube.edu.pk/index.php?option=com_ninjaboard...)



B1 U3 : Function Oriented Modeling

- <http://www.cse.iitb.ac.in/~rkj/talks/modeling.pdf>
- <http://www.youtube.com/watch?v=fJW65Wo7IHI> (*Video*)
- <http://www.youtube.com/watch?v=kHCzG6okHos> (*Video*)

Block-2: Design and Testing

- Unit-1: Function Oriented Design (
<http://cs.uwindsor.ca/~xyuan/311/Lec11.pdf>)
- **Unit-2: Object Oriented Design (**
http://en.wikipedia.org/wiki/Object-oriented_design)
- **Unit-3: Testing Techniques (**
<http://mcahelpline.com/tutorials/testing/testing.pdf>

B2 U4: Development and Execution of Test Cases

- Debugging (<http://en.wikipedia.org/wiki/Debugging>)
- Test Cases and Test Plans (http://pic.dhe.ibm.com/infocenter/...test.../t_add_new_testcase_to_plan.html)

Block-3: Software Engineering Concepts

- **Unit-1: Software Development Models (http://en.wikipedia.org/wiki/Systems_development_life-cycle)**
- **Unit-2: Software Project Management Concepts (<http://www.cs.ox.ac.uk/people/michael.wooldridge/teaching/soft.../lect05.pdf>)**
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- *Block-3 Unit-3: Software Engineering Fundamentals (<http://www.nyu.edu/classes/jcf/g22.../SoftwareEngineeringFundamentals.pdf>)*

Other Reference Materials

- CS-70 : Introduction to Software Engineering (2 blocks)
- Video lectures at Youtube IGNOU SOCIS section
(<http://www.youtube.com/ignou>)



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Thank You All