Programme: MMS / PGDM

Name of the Course: Software Engineering
Maximum marks: 100 **No. of Sessions**: 15

Name of the Faculty: Arun,W

Mobile No: _____**Email**: _____

Weblink:
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Learning Objectives:

Be employed in industry, government, or entrepreneurial endeavors to demonstrate professional advancement through significant technical achievements and expanded leadership responsibility

an ability to apply knowledge of mathematics, science, and engineering. an ability to design and conduct experiments, as well as to analyze and interpret data. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

Reference Books:

Systems Analysis and Design by James Senn
Software Engineering by OOAD – Buch and Rambaugh
UML by Wrox Publication
OOAD & UML by Rambaugh Software Metrics
Nasscom Reports and Nasscom
website for Industry Perspective Structured systems analysis and design: concise study Ed: 1 : Kelkar SA

Plan:

Session No	Topics to be covered	Pedagogy	Remark
1	Exposure to software development process – Software Lifecycles such as Waterfall, Spiral, Prototyping, Rational Unified Process,	PPT, Case study,whiteboard	
2	Agile Methodologies – Various phases in each lifecycle model, and the pros and cons of these approaches to	PPT, Case study,whiteboard	
3	Analysis and Design of Information systems' Assessing the Feasibility of a system ,Gathering detailed requirement , Use of Structured methods such as	PPT,Diagram,Flow charts,Quiz on application oriented questions,Interaction	

	Data flow, Entity Relationship diagrams etc .		
4	Use of Object Analysis and Design Use Cases and visualization of the IT based solution Design of Inputs , Outputs and other interfaces	PPT, Case study,whiteboard	
5	Documenting Software requirements - various documents used at different stages of software development process – User Requirement Specifications	PPT, Case study,whiteboard	
6/7	Software Estimation – challenges in Estimation of software – methods of software estimation such as Line of Code, Function Point, COCOMO, Use Case Point Method etc – Estimating a Coding Task versus non-coding activities such as Documentation etc	PPT, Case study,whiteboard	

8	Software Quality and Testing – Need for testing, Quality assurance of software at each phase in the lifecycle.	PPT, Case study,whiteboard	
9/10	Various types of tests such as Black box v/s White box, Functional test, code reviews , Stress tests, load tests etc Use of Use Cases for functional testing, Preparing Test Data and Test Cases, overview of Automated methods for testing		
11	Review of Student Presentations on exercise which requires them to analyse a business process, document the requirements,	PPT, Case study,whiteboard	

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Teaching Plan (MMS / PGDM)
Academic Year (2014-15)

12	Analysis and Conceptual design of the system, estimation of the software size	PPT, Case study,whiteboard	
13	Case Studies and Presentations	PPT, Case study,whiteboard	

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Evaluation:

I) Internal:

Component	Details	Marks
Class Test		
Presentation, Assignment etc.		
Class Participation		
Student Conduct		

Arun W

Signature of Faculty   **Signature of Co-ordinator**

DR VN BRIMS/FRM/ACA/08, Rev 00