SOFTWARE ENGINEERING
EE-604A
Credit: 3
Contact: 3L

Module 1 [10]
Overview of system analysis & design: Business system concept, System development life cycle, waterfall model, Spiral Model, Feasibility Analysis, Technical feasibility, Cost-benefit Analysis, COCOMO model.

Module 2 [05]
System design: Context diagram and DFD, Problem partitioning, Top down and bottom up design, decision tree, decision table and structured English, Functional Vs object oriented approach.

Module 3 [08]
Testing: Levels of testing, Integration testing, Test case specification, Reliability assessment, Validation & Verification metrics, Monitoring & control

Module 4 [07]
System project management:
Project scheduling, Staffing, software configuration management, Quality assurance, Project monitoring.

Module 5 [10]
Fundamentals of Object oriented design in UML:
Static and dynamic models, necessity of modeling, UML diagrams, Class diagrams, Interaction diagrams, Collaboration diagram, Sequence diagram, State chart diagram, Activity diagram, Implementation diagram.

Text Books:
1. Software Engineering, R.G. Pressman, TMH
2. Software Engineering Fundamental, Behforooz, OUP
3. Software Engineering, Ghezzi, PHI

Reference Books:
1. An integrated approach to Software Engineering, Pankaj Jalote, Narosa
2. Software quality, Benmenachen, Vikas
3. IEEE standard on Software Engineering.
4. Software defect Prevention, Kane, SPD.
5. Essentials of Software Engineering, Uma, Jaico