

MCA 302 SOFTWARE ENGINEERING

Module 1 The Software Process

Software and Software Engineering, Software Development Process Models – The Waterfall Model, V-Model, Incremental Process Models, Prototyping, the Spiral Model, Concurrent Models. Software Implementation and Management process- inspection, Agile Development, Principles that Guide Practice

Module II Modeling and Design

Understanding Requirements, Requirements Modeling: Scenarios, Information, and Analysis Classes, Requirements Modeling for WebApps, Design Concepts, Software Architecture : Definition, Importance and Styles, User Interface Design

Module III Quality Management

Quality Concepts, Review Techniques, Software Quality Assurance, Software Configuration Management, Product Metrics

Module IV Testing

Software Testing Strategies, Testing Conventional Applications, Testing Object-Oriented Applications, Testing Web Applications

Module V Project Management

Project Management Concepts, Process and Project Metrics, Estimation for Software Projects, Project Scheduling, Risk Management

References

- Pressman, R.S., Software Engineering: A Practitioner's Approach, MGHISE, 7th Edition, 2010
- Sommerville, I., Software Engineering, Pearson Education, 7th Ed., 2005.
- Software Engineering principles & Practice- Waman S Jawadekar 2nd Edition, Tata Mc-Graw Hill Publishing Co. Ltd.
- Schach, S., Software Engineering, TMH, 7th Ed., 2007
- Kelkar, S.A., Software Engineering: A Concise Study, PHI, 2007
- Humphrey, W.S., Managing the Software Process, Addison Wesley, 1999
- Hughes, B and Cotterel, M., Software Project Management, 3rd Edition, TMH, 2004.
- Brooks, F.P., The Mythical Man-Month, Pearson, 1995