1. Software Engineering (CS-118) **(3-0-2)**

Introduction, Software Product and Process, Software Process Models, Requirements Engineering, Requirements Analysis –Data Flow Diagram, Requirement Specification, Requirement Validation; Design- Concepts, Coupling, Cohesion, Mapping Requirements to Design, User Interface Design, Structure Charts, Coding Principles, Coding Standards and Guidelines, Software Testing Techniques and Strategies, Software Debugging, Software Project Metrics and Estimation Techniques – Empirical, Heuristic and Analytical Techniques, Software Quality Assurance, CASE Tools.

References:

1. Pressman, R., Software Engineering – A Practitioner's approach, Sixth Edition, McGraw-Hill International Edition.
2. Sommerville, I., Software Engineering, Sixth Edition, Pearson Education.
3. Ghezzi, C., Jazayeri, M., Mandrioli, D., Fundamentals of Software Engineering, Second Edition, Pearson Education.
4. Jalote, P., An Integrated Approach to Software Engineering, Second Edition, Narosa Publishing House.