Course: BTech   **Semester:** 5

Prerequisite: Basic knowledge of software applications | 203105101 - Fundamentals of Programming

Rationale: This course provides a broad introduction to software engineering. The various process models required to develop software is also being described. Moreover the functional and non-functional requirements are also described.

Teaching and Examination Scheme

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
0	0	2	0	1	-	-	20	-	30	50

SEE - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Outcome

After Learning the Course the students shall be able to:

1. Prepare and do Software Requirement Specification and Software Project Management Plan by ensuring the quality of software product, different quality standards and software review techniques.
2. Apply the concept of Functional Oriented and Object Oriented Approach for Software Design.
3. Understand modern Agile Development and Service Oriented Architecture Concept of Industry
4. Analyze, design, verify, validate, implement and maintain software systems.
5. Execute a Project Management Plan, tabulate Testing Plans and Reproduce effective procedures.

List of Practical

1.	**Write a program to insert and retrieve the data from database using JDBC.**
2.	**Write a program to demonstrate the use of Prepared Statement and Result Set interface.**
3.	**Servlet Programming Servlet Execution on tomcat A servlet program to print hello world A servlet program to display request details A servlet program to handle user form A servlet program to create a cookie A servlet program to display cookie A servlet program to do session tracking Write a program to implement chat Server using Server Socket and Socket class. Write a Servlet program to send username and password using HTML forms and authenticate the user**
4.	**JSP Programming JSP program to display hello world. JSP program to demonstrate arithmetic operations JSP program to demonstrate jsp: forward action tag JSP program to request implicit object Developing a web application to insert record into Oracle Database using JSP and JDBC**
5.	**Create application to store the data in database to perform Hibernate CRUD operations.**
6.	**Create a application store the data in database to perform Spring CRUD operations.**
7.	**Create a web application to store the data in database with spring boot.**

Miscellaneous

Exam Requirement

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc