INSTITUTE	**FACULTY OF COMPUTER APPLICATIONS**
PROGRAM	**BACHELOR OF COMPUTER APPLICATIONS**
SEMESTER	**2**
COURSE TITLE	**ANALYSIS AND DESIGN OF SYSTEMS**
COURSE CODE	**05BC3202**
COURSE CREDITS	**3**

Objective:

1 Apply knowledge of steps in Software Development
2 Application of Information gathering methods
3 Depiction of Analysis in terms of diagrams and tables.
4 Creating effective User Interface Design.
5 Ensuring Quality Assurance and effective implementation of system

Course Outcomes: After completion of this course, student will be able to:

1 Develop project by applying knowledge of System development life cycle.
2 Impart knowledge of how to gather information, agile modeling and prototyping
3 Impart knowledge about analysis process.
4 Impart knowledge about proper design and documentation
5 Design accurate data entry procedure, quality assurance and implementation.

Pre-requisite of course: Understanding of Information Systems

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
3	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	**System analysis basics** Types of system, Integrating technologies for system, Need for system analysis and design, Role of system analyst, System Development Life Cycle, Impact of maintenance, Using CASE tools, Agile approach	5
2	**Information Requirement analysis** Information gathering methods , Interviewing, JAD, Usage of questionnaire , Sampling, Investigation, Observing decision maker's behavior and physical environment, Agile modeling and prototyping , Prototyping, Developing a prototype, Rapid application development, Agile modeling	10

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. R SRIDARAN
Digitally signed by (Name of Dean/ Principal)

Contents : Unit	Topics	Contact Hours
3	**Process of Analysis** Using data flow diagrams, Data flow approach, Developing data flow diagrams , Logical and physical data flow diagrams, Example, Data dictionaries, Data repository, Creating data dictionary, using data dictionary, Process specifications and structured decisions, Overview of process specifications, Structured English, Decision tables, Decision trees	13
4	**Design of system** Designing output, output design objectives, relating output content to output method, realizing output bias effects, designing output for displays, designing output for websites, Designing input, Good form design. Intranet and internet page design, Designing database, data concepts, normalization, denormalization, guidelines for master file/database relation design, data warehouse, Human Computer Interaction(HCI) , Understanding HCI, usability, Types of user interface, guidelines for dialog design, feedback for users	15
5	**Quality assurance and implementation** Designing accurate data entry procedures, Effective coding, Effective and efficient data capture, Ensuring data quality through input validation,, Quality assurance and implementation, TQM approach, Documentation approach, Testing, maintenance and auditing, Implementing distributed systems, Training users, Conversion to a new system, evaluation	7
Total Hours		**50**

Textbook :

1 System Analysis and Design,, Kenneth Kendall and Julie Kendall, , Prentice Hall, 8 E

References:

1 Modern System Analysis and Design, Modern System Analysis and Design, Joseph Valacich and Joey George, , Pearson , 8 E

2 Analysis and Design of Information Systems,, Analysis and Design of Information Systems,, James A Senn, TMH, 2 E

3 Workbook on System Analysis and Design, Workbook on System Analysis and Design, V.K Garg, -, -

4 System Analysis and Design methods, System Analysis and Design methods, Jeffrey Whitten and Lonnie Bentley, McGraw-Hill, 7 E

5 Analysis and Design of Information systems, Analysis and Design of Information systems, V. Rajaraman,, PHI, 3 E

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. R SRIDARAN
Digitally signed by (Name of Dean/ Principal)

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
20.00	30.00	25.00	15.00	10.00	

Instructional Method:

1 PRESENTATION
2 DISCUSSION
3 CASE STUDY
4 VIDEOS
5 QUIZES

Supplementary Resources:

1 https://nptel.ac.in/courses/106108103/
2 https://www.tutorialspoint.com/system_analysis_and_design/

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. R SRIDARAN
Digitally signed by (Name of Dean/ Principal)