# Uka Tarsadia University

# B.Com (Computer Application)

## Software Engineering (030100603)

## 6th Semester

**Effective from January-2014**

# Uka Tarsadia University

## Software Engineering (030100603)

### B.Com (Computer Application) (Sem.-6) Syllabus, effective from January -2014

**Course Objective:** To make students to understand the concepts and skills of system analysis and design.

**Course Outcomes:** Students will be able to:

- Learn concept of design new system and implement their plans.
- Learn designers to manage projects analyze and document systems.
- Study of data flow diagrams, data dictionary and e-r diagrams.

**Total Hours: 52** **[4 hrs. per week]**

### Unit-1 Introduction to System [Weightage 25%]

1.1. System - Components, Characteristics, Classification of System, Business System,
1.2. Business Information Systems, Subsystem, Constraints and Limitation of System
1.3. System Analysis and Design
1.4. Software Development Life Cycle – Definition, Objective of SDLC, Classical Software Life Cycle, Structured Life Cycle,
1.5. Advantage of Structured System Analysis and Design Methodology, Software Life Cycle Methods

### Unit-2 Analysis, Requirements, DFD and E-R Diagram [Weightage 25%]

2.1. Application Analysis and Fact Finding Techniques
2.2. System Requirements Specification Review
2.3. System Description Techniques – Flow Charts, Data Flow Diagrams
2.4. Data Dictionary, Entity Relationship Diagram

### Unit-3 Normalization, Design and Resource Requirement [Weightage 25%]

3.1. Normalization, Structured English, Effective Modular Design
3.2. Structure Charts, Design Process
3.3. Coupling and Cohesion, Design Guidelines
3.4. Application Resource Requirement

## Unit-4 Software Testing, Conversion, Documentation and Management

**[Weightage 25%]**

4.1. Software Testing

4.2. Data Creation and Conversion

4.3. System Documentation and Maintenance

4.4. Software Project Management

**Text Book:**

1. Premal Shah., *Information System Analysis Design*. Benison Education.

**Reference Books:**

2. Kendall and Kendall. Systems *Analysis and Design*. Prentice Hall of India.