Silver Oak College of Engineering and Technology
B.E. 3rd Computer Engineering Department
Mid Semester II Exam Syllabus (June-Dec 2020)

Subject Code	Subject Name	Syllabus (As Per GTU)	Subject Co-ordinators
3130004	Effective Technical Communication	**UNIT 3 Technical Communication:** Public speaking Group discussion Presentation strategies Interview skills Negotiation skills **UNIT 4 Ethics in Engineering:** Scope of engineering ethics Accepting and sharing responsibility Responsible professionals and ethical corporations Resolving ethical dilemmas Making moral choices **UNIT 5 Etiquettes:** Telephone etiquettes Etiquettes for foreign business trips Visits of foreign counterparts Etiquettes for small talks Respecting privacy Learning to say NO Time management **UNIT 6 Self-development and Assessment:** Change, Grow, Persist, Prioritize, Read, Learn, Listen, Record, Remember, Asses, Think, Communicate,	Dr. Chintan Vaghela
3130006	Probability and Statistics	**Unit 2** Some Special Probability Distribution **Unit 3** Basic Statistics: Measure of Statistics for continuous random variables, expected values of two dimensional random variables, bounds on probabilities, chebyshev's inequality, Correlation and Regression	Prof. Karishma Pandey
3130702	Data Structures	**UNIT 2 LINEAR DATA STRUCTURE** Linked List: Singly Linked List, Doubly Linked list, Circular linked list, Linked implementation of Stack, Linked implementation of Queue, Applications of linked list. **UNIT 3 NONLINEAR DATA STRUCTURE** Tree-Definitions and Concepts, Representation of binary tree, Binary tree traversal (Inorder, postorder, preorder), Threaded binary tree, Binary search trees, Conversion of General Trees To Binary Trees, Applications Of Trees , Some balanced tree mechanism, eg. AVL trees, 2-3 trees, Height Balanced, Weight Balance	Prof. Jigar Dalvadi
3130703	Database Management System	**UNIT - 5** Query processing and optimization: Evaluation of relational algebra expressions, Query equivalence, Join strategies, Query optimization algortihams. **UNIT - 6** Storage strategies: Indices, B-trees, hashing. **UNIT - 7** Transaction processing: Concurrency control, ACID property, Serializability of scheduling, Locking and timestamp based schedulers, Multi-version and optimistic Concurrency Control schemes, Database recovery. **UNIT - 8** Database Security: Authentication, Authorization and access control, DAC, MAC and RBAC models, Intrusion detection, SQL injection. **UNIT - 9** SQL Concepts : Basics of SQL, DDL,DML,DCL, structure – creation, alteration, defining constraints – Primary key, foreign key, unique, not null, check, aggregate functions, Built-in functions –numeric, date, string functions, set operations, sub-queries, correlated sub-queries, join, Exist, Any, All , view and its types., transaction control commands. **UNIT - 10** PL/SQL Concepts : Cursors, Stored Procedures, Stored Function, Database Triggers.	Prof. Viren Patel
3130704	Digital Fundamentals	**UNIT - 3** Sequential circuits and systems A 1-bit memory, the circuit properties of Bistable latch, the clocked SR flip flop, J- K-T and D types flip flops, applications of flip flops, shift registers, applications of shift registers, serial to parallel converter, parallel to serial converter, ring counter, sequence generator, ripple(Asynchronous) counters, synchronous counters, counters design using flip flops, special counter IC's, asynchronous sequential counters, applications of counters	Prof. Rachana Jadvani