SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY
Mid Semester Examination-I Syllabus (Winter-2017)
Semester-I

Name of Subject: Communication Skills
Subject Code : 2110002

Unit No.	Topic Name
1	Definition and process of communication Kinesics Paralinguistics Proxemics Chronemics
2	Defining the purpose of presentation, Analyzing audience and locale, organizing content and preparing an outline
6	The Road Not Taken Goodbye Party of Miss Pushpa T.S The Eyes are not Here The Romance of Busy Broker

Pratik Patel
Subject Coordinator

Dr. Poonam Darbar
Head of Dept.

SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY
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Name of Subject: Computer Programming & Utilization
Subject Code : 2110003

Unit No.	Topic Name
1	**Introduction to computer and programming:** Introduction ,Basic block diagram and functions of various components of computer, Concepts of Hardware and software, Types of soft wares, Compiler and interpreter, Concepts of Machine level, Assembly level and high level programming ,Flow charts and Algorithms
2	**Fundamentals of C** Features of C language, structure of C Program, comments, header files, data types, constants and variables, operators, expressions, evaluation of expressions, type conversion, precedence and associatively, I/O functions
3	**Control structure in C** Simple statements, Decision making statements, Looping statements, Nesting of control structures, break and continue , goto statement

Jahnavi Shukla
Reena Raval
Snehi Patel

Subject Coordinators

Dr. Poonam Darbar
Head of Dept.

SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY
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Name of Subject: ELEMENTS OF CIVIL ENGINEERING
Subject Code : 2110004

UNIT NO.	TOPIC NAME
I	Chapter 01 : Introduction
II	Chapter 02 : Surveying, Levelling and Mapping
	Chapter 03 : Linear Measurements
III	Chapter 06 : Building Material
	Chapter 07 : Building Construction

Jay Shah

Subject Co-ordinator

Dr. Poonam Darbar

Head of Dept.

SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY
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Name of Subject: Elements of Electrical Engineering
Subject Code : 2110005

Unit No.	Topic Name
Unit: - 1(A) D.C. Circuits	
	Introduction of Electrical Current, Voltage, Power and Energy; Sources of Electrical Energy
	Independent and Dependent Source, Source conversion;
	Ideal electrical circuit elements - Resistor, Inductor and Capacitor;
	Fundamental laws of electric circuits - Ohm's Law and Kirchhoff's Laws;
	Analysis of series, parallel and series-parallel circuits
	Star – Delta conversion
	Node analysis.
	Mesh analysis.
Unit: - 2(a) Single Phase of A.C. Circuit	
	Generation of sinusoidal voltage
	Definition of average value, Root mean square value
	Form factor and peak factor, Power factor
	Phasor representation of alternating quantities
	Analysis with phasor diagrams of purely resistive circuits
	Analysis with phasor diagrams of purely inductive circuits
	Analysis with phasor diagrams of purely capacitive circuits
	Analysis with phasor diagrams of R-L, Concepts of Real power, Reactive power, Apparent power
	Analysis with phasor diagrams of R-C, R-L-C Circuits
	Analysis with phasor diagrams of Parallel circuits
	Resonance in series and Q-factor
	Resonance in parallel and Q-factor

Vidhi Patel — Subject Coordinator

Dr. Poonam Darbar — Head of Dept.

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Name of Subject: EME

Subject Code : 2110006

Sr No	Chapter No.	Content
1	**1**	**Introduction:** Prime movers and its types, Concept of Force, Pressure, Energy, Work, Power, System, Heat, Temperature, Specific heat capacity, Change of state, Path, Process, Cycle, Internal energy, Enthalpy, Statements of Zeroth Law and First law
2	**3**	**Properties of gases:** Gas laws, Boyle's law, Charle's law, Combined gas law, Gas constant, Relation between Cp and Cv, Various non-flow processes like constant volume process, constant pressure process, Isothermal process, Adiabatic process, Poly-tropic process
3	**6**	**Steam Boilers:** Introduction, Classification, Cochran, Lancashire and Babcock and Wilcox boiler, Functioning of different mountings and accessories
4	**7**	**Internal Combustion Engines :** Introduction, Classification, Engine details, four-stroke/ two-stroke cycle Petrol/Diesel engines, Indicated power, Brake Power, Efficiencies
5	**10**	**Refrigeration & Air Conditioning:** Refrigerant, Vapor compression refrigeration system, vapor absorption refrigeration system, Domestic Refrigerator, Window and split air conditioners

Mr. VIJAY BHENDWADE
Mr.BRIJESH KUMAR
(SUBJECT COORDINATORS)

Dr. Poonam Darbar
Head of Dept.

SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY
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Name of Subject: ENVIRONMENTAL STUDIES
Subject Code : 2110007

UNIT NO.	TOPIC NAME
UNIT 1	
1	Introduction to Environment & Environmental Studies
2	Ecology & Ecosystem
Natural resources	
3	Renewable & Non Renewable Energy Sources(Natural Resources)
4	Water Resources
5	Forest Resources
6	Food & Land Resources
UNIT 2	
7	Human Population and Environmental Pollution

Kajal Patel
Subject Coordinator

Dr. Poonam Darbar
Head of Dept.

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Name of Subject: Engineering Physics
Subject Code : 2110011

Unit No.	Topic Name
3	**ACOUSTIC AND ULTRASONIC:** • Introduction, Classification and Characteristics of sound • Sabine's formula for reverberation (Without Derivations) • Introduction of Absorption co-efficient • Sound absorbing materials • Factors affecting the acoustics of building and their remedies • Sound Insulation • Noise Pollutions • Noise Control in machines • Properties of ultrasound • Generation of ultrasound by (1) piezoelectric method and (2) magnetostriction method • Methods for Ultrasound Velocity measurement • Applications of ultrasound: Industry, Medicine • NDT through Ultrasonic
4	**SUPERCONDUCTIVITY:** • Superconductivity • General Properties of superconductors • Types of Superconductors • High Temperature superconductors • Applications: Magnets, Josephson effect, SQUID, Maglev, other
5	**NON LINEAR OPTICS: ONLY (LASER)** • Introduction • Characteristics of laser radiation • Spontaneous and stimulated emission • Working of LASER with basic idea about Population Inversion, Pumping mechanism, Optical Resonators • Nd:YAG LASER • Applications of LASER: Medical, Industrial, Communication and other

Vipul Patel
Subject Coordinator

Dr. Poonam Darbar
Head of Dept.

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Name of Subject : Engineering Graphics
Subject Code : 2110013

Unit No.	**Topic Name**
1	Introduction to Engineering Graphics and Plain Scale and Diagonal Scale
2	Spirals and Involute
3	Projection of Points and Lines
4	Orthographic and Sectional Orthographic Projections

Mr. Shripal M. Patel (1st Shift)
Mr.Hardik N. Patel (2nd Shift)
Subject Coordinators

Dr. Poonam Darbar
Head of Dept.

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Name of Subject: CALCULUS
Subject Code : 2110014

Unit No.	**Topic Name**
Unit 3 (a)	Indeterminate Forms: $0/0, \infty/\infty, \infty.0, \infty-\infty, 0^0, \infty^0, 1^\infty$
Unit:5	Partial derivatives and Clairaut's theorem(First ,Second & Higher order), Total derivative& Chain Rule(Composite function of 1 & 2 variable), Homogeneous function, Euler's theorem, its corollary, Implicit Function, Tangent plane, Normal line, Maxima & Minima, Lagrange multipliers, Jacobian , Function of 2-variables, graphs, level curves, Limit, continuity of function of several variables, Taylor's formula for two variables, Linear approximation

Amee Joshi
Subject Coordinator

Dr. Poonam Darbar
Head of Dept.