

PROPOSED CURRICULAM AND SYLLABI OF  
FULL-TIME DIPLOMA COURSES IN  
INTERIOR DECORATION  
(PART – I SEMESTER-2<sup>nd</sup>)  
W.E.F.2019-20



WEST BENGAL STATE COUNCIL OF TECHNICAL EDUCATION

(A Statutory Body under West Bengal Act XXI of 1995)

"Kolkata Karigori Bhavan", 2<sup>nd</sup> Floor, 110 S. N. Banerjee Road, Kolkata – 7 00013

**DRAFT | COURSE STRUCTURE | INTERIOR DECORATION**

West Bengal State Council of Technical Education Teaching and Examination Scheme for Diploma in Engineering Courses Branch: INTERIOR DECORATION Sem.-2nd												
Sl.No.	Sub. Type	Subject	Credits	Periods			Evaluation					
				L	TU	PR	Internal Scheme			ESE		Total Marks
							TA	CT	Total	TH	PR	
1.	TH.	Business Economics & Accountancy	3	4	-	-	10	20	30	70	-	100
2.		Applied Chemistry	3	2	-	2	5	10	15	35	50	100
3.		Engineering Mathematics	4	3	1	-	10	20	30	70	-	100
4.		Strength of Materials	2	2	1	-	5	10	15	35	-	50
5.		<b>Design Fundamentals</b>	3	3	-	-	10	20	30	70	-	100
6.	Sess.	<b>Basic Design</b>	2	-	-	3	25	-	25	-	25	50
7.		Engineering Drawing	3	1	-	3	5	10	15	35	100	150
8.		<b>Delineation</b>	2	-	-	3	50	-	50	-	50	100
9.		Development of Life Skill-I	3	1	-	3	-	-	-	-	50	50
<b>Total</b>			<b>25</b>	<b>16</b>	<b>2</b>	<b>14</b>	<b>45</b>	<b>90</b>	<b>135</b>	<b>315</b>	<b>350</b>	<b>800</b>

Student Contact Hours per week -33 hours

Theory & Sessional /Practical Period of 60 minutes each

Contact Periods -32

Library /Guided Studies-1,

L-Lecture, TU-Tutorial, TH-Theory, Sess.-Sessional, PR-Practical, TA-Teachers' Assessment, CT-Class Test, ESE-End Semester Examination

**Syllabus for : Business Economics & Accountancy**

Name of the Course: Business Economics & Accountancy	
Course Code:	Semester: Second
Duration:: Seventeen weeks	Maximum Marks: 100
Teaching Scheme	Examination Scheme
Theory: 4 hrs./week	Mid Semester Exam.:20 Marks
Tutorial: Nil hrs./week	Attendance & Teacher's Assessment: 10 Marks
Practical: Nil hrs./week	End Semester Exam.:70 Marks
Credit: 3	
Aim:	
SI. No.	The Students will be able to:
1.	Understand some basic economic principles applied in business
2.	Analyze logically the interrelationships among economic ideas
3.	Solve economic problems using mathematics as a tool
4.	Derive results using mathematical formula
5.	Apply decision rules to select best alternative
6.	Relate theory to real life observations
7.	Make judgment in case of choice problems
8.	Understand basic concepts of Accounts
9.	Apply Golden Rules in Journal & Ledger
10.	Maintain Cash Book
11.	Prepare Trial Balance
12.	Prepare Final Account
Objective:	
SI. No.	The students are likely to acquire the following skills at the end of the course:
1.	Critical thinking skill
2.	Mathematical problem solving skill
3.	Theorizing skill
4.	Decision making skill
5.	Accounting skill
6.	Computing skill
Pre-Requisite:	
SI. No.	
1.	Elementary knowledge about Co-ordinate Geometry
2.	Basic knowledge in Algebra and Differential Calculus

Contents: GROUP: A BUSINESS ECONOMICS TOTAL PERIODS: 30		Hrs./Unit	Marks
<p>Unit: 1 Name of the Topics: Economics and Its Relation with Engineering Period: 10</p>	<p>1.1 Allocation and effective utilisation of scarce resources Opportunity cost; Rationality Costs and benefits 1.2 Theory of demand and Supply Demand function; Law of demand; Determinants and exceptions to the law of demand; Price elasticity of demand and its importance; Determinants of elasticity; Income elasticity of demand; Cross price elasticity of demand; Classification of goods on the basis of elasticities Determinants of price elasticity Supply function and its determinants Market mechanism; equilibrium and its stability Application : (a) Calculating elasticity from linear demand equation; (b) solving linear demand and supply equations (C) Shifts of demand and supply curves</p>	<p>Period: 2 Period: 8</p>	
<p>Unit: 2 Name of the Topics: Theory of Production, Cost and Markets Periods: 12</p>	<p>2.1 Theory of Production and Costs Production function - short run &amp; long run; Short run - theory of production ; Long run - Returns to scale; Theory of costs - short run and long run cost curves Economic Concept of profit; Application: (a) Cobb-Douglas production function (b) Maximization of profit /output from linear</p>	<p>Period 8</p>	
<p>Unit: 3 Investment Planning and Problems of Indian Economy Periods: 8</p>	<p>demand function and quadratic or cubic cost functions; 2.2 Markets Basic features of- (a) Perfectly Competitive Market (b) Monopolistic Competition (c) Oligopoly and (d) Monopoly, Relevant examples from Indian economy 3.1 Investment Planning Concept of investment Evaluating Capital Projects (a) Payback Period Method (b) Net Present Value Method (c) Internal Rate of Return Method Application : Solving numerical problems 3.2 Economic Concepts and issues in the Context of Indian Economy Mixed Economy and relevance of planning; Globalization; Gross Domestic Product and its growth; Inflation; Business Cycle and real estate business in India; Foreign Direct Investment;</p>	<p>Period 3 Period :3 Period: 6</p>	
Total Periods :		30	

GROUP-B ACCOUNTANCY TOTAL PERIODS: 30			
Unit: 4 Name of the Topics: Fundamentals of Accountancy Periods: 12	4.1 Introduction to Accountancy 4.1.1 Accountancy: Definition & objectives 4.1.2 Book Keeping & Accountancy 4.1.3 Accountancy & Accounting Evolution 4.1.4 Single & Double Entry System 4.2 Double Entry System 4.2.1. Transaction Concepts: Accounts & Classification of Accounts 0 Transaction- Two fold aspects Events 0 Golden Rules 4.2.2 Journal as a book of prime entry : subdivisions of Journal 0 Recording of Transaction Narration 4.2.3 Ledger: Rules for writing Ledger 0 Balancing of Ledger Accounts—Concepts of b/d and c/d	Periods: 2 Periods:10	
Unit: 5 Name of the Topics:	5.1 Cash Book	Periods: 3	
Cash Book and Trial Balance Periods: 9	5.1.1. Single Columns and Double Column including Contra Entry 5.1.2. Concept of Petty Cash Book 5.2 Trial Balance 5.2.1 Preparation of Trial Balance 5.2.2 Rectification of Wrong Trial Balance 5.2.3 Errors detected in Trial Balance 5.2.4 Errors not detected in Trial Balance	Periods: 6	
Unit: 6 Name of the Topics: Preparing Final Account Periods: 9	6.1 Basic Concepts Regarding Final Account General Concepts Assets, Liabilities, Capital Drawings, Provision, Reserve, Reserve Fund, Bad Debts, Provision for Debts, Profit Seeking and Non-profit Seeking Concerns 6.2 Final Account Trading Account 0 Profit & Loss Account 0 Balance Sheet (with simple adjustment)	Periods:2 Periods: 7	
Total Periods:		30	

Text Books:			
Name of Authors	Title of the Book	Edition	Name of the Publisher
Samuelson & Nordhaus	Economics	Sixteenth Edition	Tata McGraw Hill
Mankiw, Gregory N.	Principles of Economics	Sixth Edition	CENAGE Learning
A.N. Agarwal	Indian Economy: Problem of Development and Planning		New Age International
Dey &Dutt AmitavaBasu	Hisab Shastra Financial Accountancy -1		Chaya Prakashani Teedee Publisher
Ranesh Roy	Bharat-er Arthaniti (Bengali Version)		Mitram

Haridas Acharya	AdhunikArthaniti	De Book Concern	
Reference Books:			
Name of Authors	Title of the Book	Edition	Name of the Publisher
Archibald & Lipsey Lipsey& Chrystal	Introduction to Mathematical Economics Economics	12 <sup>th</sup> Edition	Harper & Row Oxford
Basu& Das S. N. Maheshwari	Practice in Accountancy Introduction to Accountancy		Rabindra Library Pioneer Book House
SI. No.	Question Paper setting tips		
A	Business Economics Short Question: 10 Marks, Students will answer 10 questions, each carrying 1 mark out of 14 questions. Type: True/False, MCQ, Fill in the blanks, Definitions, Matching the items etc. Accountancy Short Question: 10 Marks, Students will answer 10 questions, each carrying 1 mark		
	out of 14 questions. Type : True/False, Classification of Accounts(Personal/Real/Nominal) etc.		
B	Business Economics Broad question: 25 Marks, Students have to answer any 5 questions choosing at least 1(one) from each of the 3 units. A total of 9(nine) questions have to be set, 3 from each unit. Each question will carry 5 Marks. Only short note to be set from Unit 3 Chapter 2 Accountancy Broad Question: 25 Marks, students will answer 3 questions choosing 1 (one) from each of the 3 units. A total of 6(six) questions have to be set, 2(two) from each Unit. From Unit 4, 1(one) numerical problem & 1(one) theoretical question carrying 8(eight) marks. From Unit 5, 1(one) numerical problem & 1(one) theoretical question carrying 7(seven) marks. From Unit 6, 1(one) numerical problem & 1(one) theoretical question carrying 10(ten) marks. Theoretical questions may have more than 1(one) part questions.		

Syllabus for **Engineering Mathematics**

Name of the Course : ENGINEERING MATHEMATICS (Second Semester all branches)	
Course Code :	Semester: Second
Duration : 15 weeks	Maximum Marks : 100
Teaching Scheme :	Examination Scheme :
Theory : 3 contact hours/week.	Internal Examination : 20 Marks
Tutorial : 1 contact hour/week	Class Attendance : 05 Marks
Practical: NA	End Semester Examination : 70 Marks
Credit: 4	Teacher's Assessment: 05 Marks
Aim :	
1.	To make the student efficient in mathematical calculations.
2.	To make the student aware about the topics in mathematics having application to engineering.
3.	
Objectives - The student will be able to	
1.	Develop the ability to apply mathematics for solving engineering & practical problems.
2.	Gather concepts, principles & different methods of mathematics.
3.	Realize the importance of mathematics in the study of engineering.
Pre-Requisite -	
1.	Concepts of mathematics taught in the subject Mathematics in Sem-1.

Group-A		Periods	
Unit 1	DETERMINANTS & MATRICES	12	
	1.1 Determinant 1.1.1 Definition & expansion of determinants of order 2 and 3. 1.1.2 Properties of determinants (statement only) 1.1.3 Minors and cofactors. 1.1.4 Evaluation of determinants of order 4 by Chio's method.		
	1.2 Matrix Algebra 1.2.1 Definition of a matrix of order $m \times n$ , leading element, principal diagonal. 1.2.2 Types of matrices - null matrix, square matrix, diagonal matrix, identity matrix etc. 1.2.3 Symmetric and Skew symmetric matrices. 1.2.4 Matrix algebra - addition, subtraction, scalar multiplication and multiplication of matrices. 1.2.5 Matrix inversion by adjoint method.		
Unit 2	NUMERICAL METHODS	7	
	2.1 Concept of Interpolation with Newton forward interpolation formula (Statement only). Simple Problems. 2.2 Numerical solution of simultaneous linear equations by Gaussian elimination method only (without proof). 2.3 Numerical Solutions of non-linear equations by Newton-		
	Raphson method (without proof). 2.4 Numerical integration by trapezoidal rule & Simpson's 1/3 rule (without proof).		
GROUP-B			
Unit 3	INTEGRATION	17	
	3.1 Definition of Integration as inverse process of differentiation. 3.2 Integration of standard functions. 3.3 Rules for integration (sum, difference, scalar multiple). 3.4 Methods for Integration 3.4.1 Integration by substitution. 3.4.2. Integration by trigonometric substitution.		

	3.4.3 Integration by parts. 3.4.4 Integration by partial fraction. 3.5 Definite Integral 3.5.1 Definition of Definite Integral. 3.5.2 Properties of definite integrals with simple problems. 3.6 Applications of Definite Integral 3.6.1 Area under plain curves. 3.6.2 Area bounded by two curves. 3.6.3 Volume of revolution. Simple examples.		
GROUP-C			
Unit 4	ORDINARY DIFFERENTIAL EQUATIONS	10	
	4.1 Definition of ordinary differential equation, order & degree. 4.2 Solution of differential equations of 1 <sup>st</sup> order & 1 <sup>st</sup> degree of 4.2.1 variable separable type 4.2.2 Homogeneous type 4.2.3 Reducible to homogeneous type 4.2.4 Exact type 4.2.5 Linear type 4.2.6 Reducible to linear type (Bernoulli's Equation). 4.3 Solution of 2 <sup>nd</sup> order linear ordinary differential equations with constant coefficients - 4.3.1 Evaluation of Complementary functions (C.F.) 4.3.2 Evaluation of Particular Integral (P.I.) for exponential function, polynomial function, sine and cosine function & functions of the form $e^{ax}V$ where V is any one of the above.		
GROUP -1)			
Unit 5	PARTIAL DIFFERENTIATION	4	
	5.1 Definition & meaning of partial derivative. 5.2 Evaluation of partial derivatives. 5.3 Definition & examples of homogeneous functions. 5.3 Euler's theorem (1st order) on Homogeneous functions for 2 & 3 variables (without proof). Simple problems.		
Unit 6	STATISTICS & PROBABILITY	10	
	6.1 Statistics		
	6.1.1 Definition & examples of frequency distribution. 6.1.2 Measures of central tendency (mean, median, mode) for ungrouped and grouped frequency distribution. 6.1.3 Measures of dispersion - Standard deviation, Simple problems.		
	6.2 Probability		
	6.2.1 Definition of random experiment, sample space, event, occurrence of events & types of events (eg. Impossible, mutually exclusive, exhaustive, equally likely) 6.2.2 Classical & axiomatic definition of probability 6.2.3 Addition & multiplication theorems of probability (statement only). Simple problems.		
	Total	60	

EXAMINATION SCHEME

Internal Examination : Marks - 20 Marks on Attendance : 05

Final Examination : Marks - 70 Teacher's Assessment: 05

Group	Unit	Objective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	10	Any Twenty	1	20 x 1 = 20
B	3	6			
C	4	6			

D	5,6	6			
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Group	Unit	Subjective Questions			Total Marks
		To be Set	To be Answered	Marks per Question	
A	1,2	3	Any Five	10	5 x 10 = 50
B	3	3	Taking At Least		
C	4	2	One From Each		
D	5,6	2	Group		

Note 1: Teacher's assessment will be based on performance on given assignments & quizzes.

Note 2 : Assignments may be given on all the topics covered on the syllabus.

Text Books		
Name of Authors	Title of the Book	Publisher
B.K. Paul	Diploma Engineering Mathematics (Vol-2)	U.N. Dhar & Sons
A. Sarkar	Engineering Mathematics	NabaPrakashani
G.P. Samanta	A Text Book of Diploma Engineering Mathematics, Volume-2	Learning Press
Konch& Dey	Engineering Mathematics	Bhagabati Publication
B.S. Grewal	Higher Engineering Mathematics	Khanna Publishers, New Delhi
Babu Ram	Engineering Mathematics	Pearson
H.K. Dass	Advanced Engineering Mathematics	S. Chand & Co.
Erwin Kreyszig	Advanced Engineering Mathematics	Wiley
Nurul Islam	Numerical Analysis	Academic Press
B.C. Das & B.N. Mukherjee	Integral Calculus - Differential Equations	U.N. Dhar & Sons
Srimanta Pal	Engineering Mathematics	Oxford University Press
Reference Books		
Name of Authors	Title of the Book	Publisher
Fatunla S O	Numerical Methods for initial value problems in ordinary differential equations.	Academic Press Inc. (London) Ltd
Kendall E A	An Introduction to numerical analysis (Second edition)	John Wiley and Sons, 1989
Burden, Richard Land Douglas	Numerical Analysis	Thomson, 9 <sup>th</sup> Edition, 2011
Braun M, Golubitsky M, Marsden J, Sirovich L,	Differential Equations and their applications	New York, Springer-Verlag LLC, 1992

Syllabus for: **Applied Chemistry**

Name of the Course: Applied Chemistry	
Course Code:	Semester: first
Duration: : 6 months	Maximum Marks: 50
Teaching Scheme	Examination Scheme
Theory: 2 hrs./week	Internal Examination: 10Marks
Tutorial: Nil hrs./week	Attendance+Assignment + interaction :05 Marks
Practical: 2 hrs./week	Final Examination: 35Marks
Credit:	
Aim:	
SI. No.	The Students will be able to:
1.	It is intended to teach students the appropriate use of engineering materials, their protection & lubrication processes in different working conditions of machines.
Objective:	
SI. No.	The students are likely to acquire the following skills at the end of the course:
1.	Suggest the appropriate use of metals, alloys & non metallic materials in engineering.
2.	Applying the Knowledge to Protect Metallic & Non Metallic Surfaces
3.	Select Lubricants for Smooth Running of Machines.
Pre-Requisite:	

SI. No.	Detailed Course Content	Hrs./Unit	Marks
<b>GROUP: A</b>			
Unit: 1 Name of the Topics: Cement	Portland cement: Raw materials, Composition and Manufacture, Setting and Hardening of cement, function of gypsum, Cement Mortar, Cement concrete. Lime mortar, plaster of paris.	3	4
Unit: 2 Name of the Topics: lubricant	Definition, purpose and types of lubrication, names of common lubricants and uses. Flash point, Fire point. Pour point. Cloud point, selection of lubricant.	2	4
Unit: 3 (For printing Technology only)	Aliphatic compounds: Chemical test to identify & uses- Alcohol: Ethanol, 2-propanol, 1- butanol. Ketone: Acetone, butanone. Acid: Acetic acid, propanoic acid. Ester: Ethyl acetate, amylacetate. Aromatic compounds Benzene: chlorination, Nitration, Friedel-Crafts alkylation; Aniline: Diazolisation, Coupling reaction with phenol aniline & N, N-dimethyl aniline.	3	4

Unit: 4 Name of the Topics: Fuel	Defination and classification, calorific value ( Dulong formula ), Determination of calorific value by Bomb calorimeter. Solid Fuels : Composition , properties and uses of wood, peat, lignite, Proximate andU A Liquid fuels : Fractional distillation of petroleum ( product and uses ), Cracking, Knocking, Octane number, Cetane number, antiknock compounds. Gaseous Fuels : Composition and uses of Coal gas, Water gas, Producer gas, Gobar gas, Natural gas, LPG, CNG, LNG.	6	7
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GROUP-B			
Unit: 5 Name of the Topics: Corrosion	Definition, Causes of Corrosion and methods of prevention, Refractories — properties and use of Boron Carbide and Carborandirm ,Asbestors, Glass, Ceramics, Cork (preliminary idea only).	4	4
Unit: 6 Name of the Topics: Protective Coating	Paints: Composition , types (Snowchem, distemper) Varnishes : Definition , types, difference from paint, uses, characteristics. Metallic coating :Galvanisation, Electroplating, Tin plating. Lacquers.	4	4
Unit: 7 Name of the Topics: Polymers	Definition & classification of Synthetic polymers Synthetic plastic Thermoplastic plastic and Thermosetting plastic — their differences with examples, preparation and uses of Polythene, PVC, Polypropylene, Polystyrene, Teflon, Bakelite, Orion, Saran. Synthetic rubber: Buna -S, Buna -N, Neoprene, Butyl, rubber, silicone, Vulcanization of rubber. Synthetic Fibres : Nylon , Terylene , Rayon.	5	6
GROUP-C			
Unit: 8 Name of the Topics: Environmental Pollution	Introduction , Definition , Causes of pollution. Types of pollution. Air Dollution : Definition, sources of Air oollution. causes of Air pollution, Different types of Air pollutants and their effects. Green House Effect, Acid Rain, OZone Layer Depletion, Air pollution control methods. Water Pollution : Definition, causes of water pollution, sources of water pollution, Methods of preventing water pollution. Domestic wastes. Industrial wastes, their physical and Biologocal characteristics, BOD, COD, Effects of water pollution.	6	6

a) Internal Examination Marks : 10 b) Final Examination Marks : 35 c) Attendance + Assignment + interaction. 5		>> Full Marks = 50	
Laboratory Experiments:			
SI. No.			
1	Estimation of total hardness of a sample of water by standard EDTA method.		
2	Qualitative detection of Arsenic content of a given sample of water [ 5 ppm soln of sod. Arsenite) ( 2 lit Arsenic containing water to 20ml by evaporation]		
3	To determine pH value of an unknown solution by pH meter.		
4	To apply Thin Layer Chromatography for separation of mixture of compounds.		
5	Preparation of phenol formaldehyde resin.		
6	Determination of dissolve O <sub>2</sub> in a sample of water.		
7.	To determine neutralization point of weak acid and weak base by conductivity meter.		
8.	1. To determine end point of titration between dilute H <sub>2</sub> SO <sub>4</sub> and BaCl <sub>2</sub> using conductivity meter.		
Text Books:			
Name of Authors	Title of the Book	Name of the Publisher	
S. S. Dara	Environmental chem. & pollution control	S. Chand Publication	
Dr. Aloka Debi	A Text Book of Env. Engg.	Dhanpat Rai Publishing Co.	
Jain & Jain	Engg. Chem.	Dhanpat Rai Publishing Co.	
Madhusudan Chowdhury	Chem I & II	NabaPrakashani	

Dr. Kaberi Bhattacharya	Chem 1 & II	Lakshmi Prakasani
Dr. Aloka Debi	Chem 1 & II	BhagabatiPrakasani
Reference Books:		
Name of Authors	Title of the Book	Name of the Publisher
Jain & Jain	Engg. Chem.	Dhanpat Rai Publishing Co.
Dr. Aloka Debi	A Text Book of Env. Engg.	Dhanpat Rai Publishing Co.
Shrieve Atkins	Industrial Chem	
Bahl&Bahl	A Text Book of Organic Chemistry	S. Chand Publication
M. M. Uppal	Engg. Chemistry	
S. N. Poddar & S.	General & Inorganic. Chemistry	Book Syndicate Pvt. Ltd.
Ghosh		
Harish Kr. Chopra Anupama Parkar	Engg. Chemistry A Text Book	Narosha Publishing House
B. K. Sharma	Industrial Chemistry	Goel Publishing House

Name of the Course: <b>Strength of Materials</b>	
Course Code:	Semester: Second
Duration: 17 Weeks	Maximum Marks: 50
Teaching Scheme	Examination Scheme
Theory: 2 hrs/week	Internal Examination: 10
Tutorial: 1 hrs/week	Assignment & Quiz: 5
Practical: Nil hrs/week	End Semester Exam:35
Credit: 2	
Aim:	
<ol style="list-style-type: none"> <li>To study and realize the effect of deformable body under various loading conditions.</li> <li>To study the concept of Moment of Inertia of various cross section.</li> <li>To study the various mechanical properties and stress - strain diagram of different materials.</li> <li>To prepare the students for further understanding of other allied subjects (e.g. TOS, MOM, TOM, machine design, and Design of structure).</li> </ol>	
Objective: The students will be able to	
<ol style="list-style-type: none"> <li>Define mechanical properties of materials and understand and analyze stress-strain diagram of engineering materials</li> <li>Determine normal stress, shear stress, thermal stress, hoop stress, buckling stress, linear deformation, lateral deformation and angular deformation of deformable body.</li> <li>Calculate moment of inertia of different cross sections of various engineering body.</li> </ol>	
Pre-Requisite: Students should know	
<ol style="list-style-type: none"> <li>Elementary knowledge on engineering mechanics</li> <li>Differential and integral calculus</li> </ol>	
Contents:	

Contents:			
		Hrs/unit	Marks
Unit 1	Mechanical Properties of Materials, Simple stresses & Strain:		
	Definition of Elasticity, plasticity, ductility, malleability, hardness, fatigue, creep, brittleness. Types of loads, Types of stress - normal stress (tensile stress & compressive stress) & shear stress, Strain - longitudinal & lateral strain, Poisson ratio, Hooke's law, Young's modulus, Stress- strain curves for ductile material (MS) and brittle material (CI)- discussion on salient points on the stress - strain diagram, working stress, Factor of safety.(simple problems on normal stresses and longitudinal strain, no discussion on composite section ). Direct shear stress, Single shear, double shear, shear strain, modulus of rigidity, (simple Problems on direct shear in riveted joint, punching press, cotter pin, lap welded joint) Thermal stress & strain of uniform section (no discussion on composite section) simple problem. Thin cylindrical shell subjected to internal pressure - hoop stress - longitudinal stress. Simple problem.	15	10
Unit 2	Shear Force & Bending Moment		
20	Definition of Shear force & bending moment, sign convention, Relation between shear force & bending moment, Shear force and bending moment diagrams for simply supported beam, overhanging beam and cantilever subjected to point loads & uniformly distributed load, location of point of contraflexure. (Problems to be based on simply supported beam, overhanging beam & cantilever beam)	12	8
Unit 3	Moment of Inertia		

	Definition of area and mass moment of inertia, Parallel and perpendicular axes theorem (no derivation), Moment of inertia about centroidal axis of solid sections - Square, rectangular, circular, semicircular, Triangular section, Hollow sections - square, rectangular and circular cross section only. Moment of Inertia of angle section, channel, Tee, I section about centroidal axis and any other axis parallel to centroidal axis. Polar moment of inertia of circular solid and hollow section. Problems on concerned cross sections	9	7
Unit 4	Deflection of Beam		
	Concepts of deflection, Maximum deflection and slope of simple supported beam subjected to point load at mid span and / or uniformly distributed load on entire span and cantilever beam subjected to point load at free end and / or uniformly distributed load on entire length, (no deduction). Simple problem on maximum deflection and slope of beam.	3	5
Unit 5	Columns & Struts		
	Definitions of column & strut - Buckling of column, Concept of equivalent length as per different end conditions, Critical load/ buckling load, safe load, Euler's & Rankine's formulae for critical/ buckling load for columns. Simple problem	6	5
Total:		45(Lecture + Tutorial)	35

Internal assessment examination and preparation for semester examination	2 weeks i.e. 6 lecturer hour	
Total:	51 lecturer hour( 17 weeks)	

Text Books:		
Name of Author	Title of the Book	Name of the Publisher
R.S.Khurmi	Strength of Materials	S. Chand & Co
S.S.Bhavikatti	Strength of Materials	Vikas publishing House Pvt. Ltd.
S. Ramamrutham & R. Narayanan	Strength of Materials	Dhanpat Rai & Publication
R.K. Rajput	Strength of Materials	S. Chand & Co
B.K.Sarkar	Strength of Materials	Tata McGraw Hill
R.K.Bansal	Strength of Materials	Laxmi Publication Pvt. Ltd.
M. Chakraborty	Strength of Materials	S.K. kataria
Reference Books:		
S.P. Timoshenko, D.H. Young	Elements of Strength of materials	West Press Pvt. Ltd.

D. S. Prakash Rao	Strength of Materials-A Practical Approach	Universities Press
Egor P Popov	Engineering Mechanics of Solid	Prentice Hall of India
R. Subramanian	Strength of Materials	Oxford Press
Pranab Majumdar	Learning Strength of Materials	Knowledge Kit publication
Suggested List of Laboratory Experiment: Nil (As decided in the meeting of subject coordinators)		
Suggested list of Assignments / Tutorial:		
Group A		
1.	One problem on normal stress, longitudinal strain & lateral strain	
2.	Stress - strain diagram of MS & CI and label the salient points	
3.	One problem on shear stress, shear strain and modulus of rigidity	
4.	One problem on thermal stress and strain	
5.	One problem on hoop stress	
6.	One problem on area moment of inertia	
7.	One problem on column	
8.	One problem on deflection of beam	
Group B		
1.	One problem of Shear force & Bending moment diagram for simple supported beam use graphical method	
2.	One problem of Shear force & Bending moment diagram for cantilever beam use graphical method	
3.	One problem of Shear force & Bending moment diagram for overhanging beam use graphical method and locate point of contraflexure	

1.	Examination Scheme: (End semester examination)		
Unit:	Marks of each question	Question to be Set	Question to be answered
1	5	3	2
2,3	5	4	2
4,5	5	2	1
1	1	4	4
2	1	2	2
3	1	2	2
4	1	1	1
5	1	1	1
Total			5x5+10x1 = 35

## DESIGN FUNDAMENTALS

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 100	
	2nd Semester	17 weeks	3 lectures	Int. Assess. 30	Examination 70

### OBJECTIVES:

1. To understand the fundamental elements and principles of design.
2. To develop aesthetic skills and their subsequent application in design.
3. To be acquainted with basic factors and data before starting design.

### MODULAR DIVISION OF THE SYLLABUS:

GROUP	MODULE	TOPIC	CONTACT PERIODS
A	1.	Introduction to Interior Design	3
	2.	Concept of Aesthetic Design	3
	3.	Design Theory	9
B	4.	Elements of Design	9
	5.	Principles of Design Theory	12
C	6.	Factors and Basic Data Effecting Design	9
Contact periods 45		Internal Assessment 6	Total periods 51

### EXAMINATION SCHEME:

#### 1. Examination (70 marks)

Group	Module	Objective Questions				Subjective Questions			
		To be set	To be answered	Marks for question	Total Marks	To be set	To be answered	Marks for question	Total Marks
A	1,2,3	6	20	01	20	3	Five,taking at least one from each Group	10	5x10=50
B	4,5	15				3			
C	6	4				2			

#### 2. Internal Assessment (30 marks)

- a. Mid Semester: 20 marks
- b. Teacher's assessment: 10 marks (Attendance and seminar / homework / class performance etc.)

### DETAIL COURSE CONTENT

#### GROUP A

##### Module 1: Introduction to Interior Design 3 Periods

- 1.1 Meaning of Interior Design and Interior Decoration.
- 1.2 Place of Interior Design in modern era.

##### Module 2: Concept of Aesthetic Design 3 Periods

- 2.1 Meaning of Aesthetics, Objectives of Aesthetic Design-Beauty, Expressiveness and Functionalism.
- 2.2 Good Taste; Meaning, Importance and laws to develop good taste.

##### Module 3: Design theory 9 Periods

- 3.1 Definition of Design, Meaning, Purpose.
- 3.2 Comparison between designed and non-designed objects, appreciation of design criteria.
- 3.3 Types of design-Structural and Decorative, their requirements.
- 3.4 Classification of decorative design-naturalistic, conventional, historic, geometric, biomorphic

- and abstract.
- 3.5 Development of Design from motifs and application.
- 3.6 Man as a consumer of design, qualities and role of a good interior designer; Application of design in interior decoration.

#### GROUP B

##### Module 4: Elements of Design      9 Periods

- 4.1 Design elements: Point, Line, Form, Texture and Colour  
Point: Significance of point in space. Singularity, Eccentricity, Stable Composition, Unstable Composition.
- 4.2 Line: Vertical, Horizontal-Diagonal, Curved, Wavy, Crooked etc. Their implication in design.
- 4.3 Form and Shape  
Shape (2D)- Basic two-dimensional contour that characterizes an object or areas-like-Square, Rectangle, Triangle, Circle. Their visual impact on human mind.  
Form (3D)- the shape and structure of something, as distinguished from its substance or material.
- 4.4 Colour - Colour theory (Munshell System), Subtractive colour, Additive Colour, Grey scale, Colour Wheel, Warm Colour, Cool Colour, Colour Schemes - Related and Contrasting, Principles of working out a colour scheme: Dominant or controlling colours – Greying – Relief & contrast colours – Accent colours – Keying- Effects of colour on human perception , Preparation of colour scheme for Residential, Commercial and Office spaces
- 4.5 Texture: Fine / Coarse Smooth / Rough/Sharp / Dull

##### Module 5: Principles of Design Theory

12 Periods

- 5.1 Unity-Achieved through the consistent use of lines, color, material and/or texture within a design
- 5.2 Balance-To create a sense of stability. Both physical and visual balance. Symmetrical or formal balance /Asymmetrical or informal balance /Radial balance / Vertical balance/Horizontal balance
- 5.3 Proportion and scale - Comparative relationship between elements in a design with respect to size. Golden Mean, Modular, Scale: Monumental scale, Human scale
- 5.4 Emphasis -The focal point can be achieved through shape, color, line, size
- 5.5 Contrast - Can be created with: Proportion and scale, Shape, Color and Texture
- 5.6 Rhythm- Repeated use of line, shape, color, texture or pattern. Types -Regular, Graduated, Random
- 5.7 Repetition-Definition, its significance in composition with example
- 5.8 Hierarchy- Definition, imply importance, it's application in composition.
- 5.9 Emphasis-The focal point can be achieved through shape, color, line, size.
- 5.10 White space or negative space-Definition, Significance in composition
- 5.11 Movement- Flow or feeling of action
- 5.12 Harmony- Definition, Repetition of elements to create pleasing effect in Composition.

#### GROUP C

##### Module 6: Factors and basic data effecting Design

9 Periods

- 6.1 Factors effecting Interior Design: Location, Needs, Preferences-Financial Limits and Maintenance.
- 6.2 Anthropometric Data, Ergonomics, Movement and Circulation Spaces, Furniture Sizes.

#### REFERENCE BOOKS

1. Bhat Pranav & GoenkaShanita, *The Foundation of Art & Design*, Lakani Book Depot, Bombay, 1990.
2. Goldstein, H & Goldstein V, *Art in Everyday Life*, Oxford & IBH Publishing Company, New Delhi, 1967
3. Rutt Anna Hong, *Home Furnishing*, Wiley Eastern Pvt. Ltd., 1961
4. Bhat Pranav & GoenkaShanita, *The Foundation of Art & Design*, Lakhani Book Depot., Bombay, 1990
5. Goldstein H & Goldstein V, *Art in Everyday Life*, Oxford and IBH Publishing Company, New Delhi, 1967.
6. Rutt Anna Hong, *Home Furnishing*, Wiley Eastern Pvt. Ltd., 1961
7. Scott R G, *Design Fundamentals*
8. *Visual Notes for Architects and Designers* (Norman Crowe and Paul Laseau)
9. *Geometry of Design: Studies in Proportion and Composition* (Kimberly Elam)

## BASIC DESIGN

### Syllabus for Basic Design

Name of the Course: Basic Design	
Course Code:	Semester: 2ND
Duration: 45 hrs (15L+30 Pr)	Maximum Marks: 50
Teaching Scheme	Examination Scheme
Theory: 00 hrs./week	Continuous Internal Assessment of 25 marks is to be carried out by the teachers throughout Second Semester
Tutorial: 00 hr./week	<b>External Assessment of 25 marks</b> shall be held at the end of the Part I – Second Semester on the entire syllabus. One assignment per student from any one of the assignments done is to be performed. Assignment is to be set by lottery system. <b>Distribution of marks: On spot job – 12, Viva-voce – 13.</b>
Practical: 03 hrs./week	
Credit: 2	

### DETAIL COURSE CONTENT

#### **Module 1 Design Fundamentals**

20 periods

- 1.1 Introduction to the ELEMENTS OF DESIGN based on POINTS, LINES, PLANES, FORMS, TEXTURE, COLOUR etc. — Introduction to the PRINCIPLES OF DESIGN based on SCALE, SYMMETRY, BALANCE, PROPORTION, RHYTHM etc.
- 1.2 TWO-DIMENSIONAL COMPOSITION of simple geometrical shapes based on Scale, Proportion, Symmetry and Balance.
- 1.3 THREE-DIMENSIONAL COMPOSITION of simple geometrical forms (applying the basic structure of two-dimensional composition) based on Scale, Proportion, Symmetry, Balance and Solid & Voids.
- 1.4 GENERAL PRINCIPLES OF COLOUR based on its different qualities & schemes and their representation through a Colour-Wheel.

#### **Module 2 Study & Analysis**

10 periods

General principles of Architectural Design on the basis of Functions and Forms; Study and Analysis of simple functional spaces of a small building based on areas & dimensions, furniture & fixtures. Plans, elevations & sections, as required, are to be provided by the teacher-in-charge(s).

#### **Module 3 Design & Drawing**

15 periods

Design and drawing of a simple building showing furniture-layout and fixtures (Plans, Elevations and Sections as requi

Syllabus for Engineering Drawing

Name of the Course: ENGINEERING DRAWING			
Course Code:		Semester: Second	
Duration: 17 weeks		Maximum Marks: 150	
Teaching Scheme		Examination Scheme	
Theory: 1 hrs./week	Internal Examination: Marks: 10		Marks on attd.:05
Tutorial: hrs./week	Continuous Internal Assessment : 50 External Assessment: 50		
Practical: 3 hrs./week	End Semester Exam.: Marks 35		
Credit: 3			
Aim:			
Sl.No.			
1.	The Course is aimed at developing basic graphic skills so as to enable them to use these skills in preparation of engineering drawings.		
2.	Understand the fundamentals of Engineering Drawing		
3.	Read and interpret object drawings.		
Objective:- The student should be able to:-			
Sl.No.			
1.	Draw different engineering curves and know their applications.		
2.	Draw orthographic projections of different objects.		
3.	Visualize three dimensional objects and draw Isometric Projections.		
4.	Use the techniques and able to interpret the drawing in Engineering field		
5.	Use computer aided drafting		
Pre-Requisite:			
Sl.No.			
1.	Unambiguous and clear visualization.		
2.	Sound Pictorial Intelligence		
Contents (Theory)			
		Hrs./Unit	Marks
Unit: 1 Name of the Topics: Projections of Solids	1.1 Projections of Prism, Pyramid, Cone, Cylinder, Tetrahedron, Cube with their axes perpendicular /inclined to one reference plane and parallel to other.	02	05
Unit: 2 Name of the Topics: Sectional Views	2.1 Types of sections 2.2 Conversion of pictorial view into sectional orthographic views (First Angle Projection Method only )	02	05
Unit: 3 Name of the Topics: Missing Views	3.1 Missing view from the given orthographic views- simple components (First Angle Projection Method only )	02	05
Unit: 4 Name of the Topics: Sections of Solids	4.1 Prism, Pyramid, Cone, Cylinder, Tetrahedron, Cube resting on their base on Horizontal plane. 4.2 Prism, Cylinder : Axis parallel to both the reference plane 4.3 Section plane inclined to one reference plane and perpendicular to other	03	05
Unit: 5 Name of the Topics: Isometric Projection	5.1 Conversion of orthographic views into Isometric view / projection ( Including rectangular, cylindrical objects, representation of slots on sloping as well as plane surfaces )	03	05
Unit: 6 Name of the Topics: Developments of Surfaces	6.1 Developments of Lateral surfaces of cube, prism, pyramids, cylinder, cone and their applications such as tray, funnel, chimney, pipe bends etc.	02	05
Unit: 7 Name of the Topics: Axonometric Projections	7.1 Introduction to Axonometric Projections	02	05
Total		16	35

Contents (Practical)		
List of Practical	Intellectual skill	Motor skill
1.Projection of solids Three problems on three different solids, one by axis of solid inclined to H.P and parallel to V.P. and one problem by axis inclined to V.P. and parallel to H.P. and one problem by axis inclined to both planes. ( 1 sheet )	To interpret the different positions of solids with reference planes. To develop ability to differentiate between true length of axis and apparent length of axis.	To draw projections of different solids when axis is inclined or perpendicular to one of the reference plane.
2.Sectional Views & Isometric Projections Two objects by First Angle Projection Method with section Two objects one by true scale and another by Isometric scale ( 1 sheet )	To interpret sectional views of given object Develop ability to differentiate between Isometric view and isometric projections	Develop ability to draw sectional views , Isometric views and Isometric projections from given objects and orthographic views of an object
3.Missing Views Two problems by first angle projection method ( 1 sheet )	To interpret the missing view from given orthographic views.	To develop ability to draw missing view from given orthographic views. To develop ability to draw perspective view from given orthographic views.
4. Section of solids Three problems on different solids, one problem, section plane inclined to H.P.and perpendicular to V.P. one problem ,section plane inclined to V.P.and perpendicular to H.P And one problem, section plane perpendicular to one reference plane and parallel to other plane. ( 1 sheet )	To differentiate between true shape and apparent shape of section. To interpret the positions of section plane with reference planes.	To develop ability to draw the sectional orthographic views of given solids ,when it is cut by section plane in different position with reference planes. Ability to draw true shape of section.
5.Development of surfaces Three problems on development of surfaces of different objects ( 1 sheet )	Able to interpret the development of surfaces of different solids.	Ability to draw the development of surfaces of different objects in different shapes.
6. Axonometric Projection of exterior Interiors (any one room ) ( 1 sheet )	To differentiate between scale drawing and free hand drawing.  To express exterior or interior views of any house through Axonometric views [For ARCH ]	Develop ability to draw axonometric views of exterior or interiors of any house
7. Drawing with CAD One object by first angle projection method with section and one Isometric figure.	To differentiate between two dimensional figure and three dimensional figure.	Develop ability to draw orthographic and Isometric figure with computer

**Text Books:**

Name of Authors	Titles of the Book	Edition	Name of the publisher
N.D.Bhatt	Engineering Drawing		Charotkar Publishing House
R.K.Dhawan	Engineering Drawing		S.Chand& Co.
K.Venugopal	Engineering Drawing and Graphics +AutoCAD		New Age publication
Basant Agrawal C M Agrawal	Engineering Drawing		Tata McGraw Hill Education Private Ltd.
N D Bhatt	Machine Drawing		Charotkar Publishing House
R K Dhawan	Machine Drawing		S.Chand& Co.
Pal & Bhattacharya	Engineering Drawing	6th	Viva Books

Reference Books:

Name of Authors	Titles of the Book	Edition	Name of the publisher
P S Gill	Engineering Drawing		SK Kataria and sons

## DELINEATION

Name of the Course: Delineation	
Course Code:	Semester: 2ND
Duration: 45 hrs (45 Pr)	Maximum Marks: 100
Teaching Scheme	Examination Scheme
Theory: 00 hrs./week	Continuous Internal Assessment of 50 marks is to be carried out by the teachers throughout Part I – Second Semester.
Tutorial: 00 hr./week	<b>External Assessment of 50 marks</b> shall be held at the end of the Part I – Second Semester on the entire syllabus. One assignment per student from any one of the assignments done is to be performed. Assignment is to be set by lottery system. <b>Distribution of marks: On spot job – 25, Viva-voce – 25.</b>
Practical: 03 hrs./week	
Credit: 2	

### OBJECTIVE

On completion of this course, the students will be in a position to understand:

### DETAILCOURSECONTENT

#### GROUP – A TWO-DIMENSIONALDELINEATION 25PERIODS

##### MODULE 1 INDOOR SKETCHING 5

To practice freehand drawing of objects & figures with shades & shadows and using colours in various media such as pencil, crayons, watercolour, poster colour etc.

##### MODULE 2 OUTDOOR SKETCHING 5

To practice freehand drawing of a building along with sky, trees, cars, human figures etc. with shades & shadows and using colours in various media such as pencil, crayons, watercolour, poster-colour etc.

##### MODULE 3 ARCHITECTURAL PRESENTATION& RENDERING OF LANDSCAPE ELEMENTS

To practice presentation and rendering of TREES, HERBS, SHRUBS, GROUND COVERS, CONTOURS, WATER BODIES etc, as a single entity and in clusters / groups, both in plans & elevations, in Black & White and in colour.

##### MODULE 4 ARCHITECTURAL PRESENTATION& RENDERING OF CARS

To practice presentation and rendering of both plans & elevations, in Black & White and in colour.

##### MODULE 5 ARCHITECTURAL PRESENTATION& RENDERING OF HUMAN FIGURES

To practice presentation and rendering of both plans & elevations, in Black & White and in colour.

**MODULE 6 RENDERING OF INTERIOR SPACES**

To practice rendering of LIVING / DRAWING ROOM, DINING ROOM, BED ROOM etc, in Black & White and in colour. The plan, elevation and perspective are to be provided by the teacher-in-charge(s). Each student is to take at least one type of interior space.

**SCHEME OF SHEETS**

MODULE	NO. OF SHEETS	SHEET SIZE
1	ONE	A1/A2
2	ONE	A1/A2
3	TWO	A1/A2
4	ONE	A1/A2
5	ONE	A1/A2
6	ONE	A1/A2

**GROUP – B PERIODS**

**THREE-DIMENSIONAL DELINEATION**

**20PERIODS**

**MODULE 7 INTRODUCTION**

Names of Tools & Appliances and characteristics of materials used for architectural model making.

**MODULE 8 ARCHITECTURAL SCALE MODEL OF OBJECTS**

To make architectural scale models of simple objects using mount-board/ balsa-wood.

**MODULE 9 ARCHITECTURAL SCALE MODEL OF SIMPLE BUILDING**

To make architectural scale model of a simple building showing adjoining site landscaping (drawings to be provided by the teacher concerned), using mount-board/ balsa-wood etc.

**Syllabus of Development of Life Skill-1**

<b>Name of the Course: All Branches of Diploma in Engineering and Technology (Development of Life Skill-1)</b>		
<b>Course Code:</b>	<b>Semester: Second</b>	
<b>Duration:</b> : Seventeen weeks	<b>Maximum Marks: 50</b>	
<b>Teaching Scheme</b>	<b>Examination Scheme</b>	
Theory: 1hrs./week		
Tutorial: Nil hrs./week	Internal Teacher's Assessment :25	
Practical: 3 hrs./week	External Teacher's Assessment :25	
Credit: 3		
<b>Aim:</b>		
Sl. No.		
1.	Conduct different session to improve students memory Power	
2.	Conduct different session to improve time management skills	
3.	Developing the team work culture	
4.	Personality development and problem solving ability	
<b>Objective:</b>		
Sl. No.		
1.	Develop reading skills	
2.	Use techniques of acquisition of information from various sources	
3.	Draw the notes from the text for better learning.	
4.	Apply the techniques of enhancing the memory power.	
5.	Develop assertive skills.	
6.	Apply techniques of effective time management.	
7.	Set the goal for personal development.	
8.	Enhance creativity skills.	
9.	Develop good habits to overcome stress.	
10.	Face problems with confidence	
11.	Apply problem solving skills for a given situation	
12.	Survive self in today's competitive world	
<b>Pre-Requisite:</b>		
Sl. No.		
1.	Basic Of Self Analysis methods.	
2.	Basic knowledge of stress and time management concepts.	
3	Basic knowledge of presentation skills.	
4.	Desire to gain comparable knowledge and skills of various activities in various streams of engineering.	
<b>Contents :</b>	<b>Development of Life Skill    TOTAL PERIODS: 48</b>	<b>Hours</b>
<b>Unit: 1</b>	Importance of Development of Life Skill( DLS), Introduction to subject, importance in present context, application	03

<b>Unit: 2</b>	<b>Information Search</b> Information source –Primary, secondary, tertiary Print and non – print, documentary, Electronic Information center, Library , exhibition, Government Departments. Internet Information search – Process of searching, collection of data –questionnaire , taking Interview , observation method. Information analysis and processing.	06
<b>Unit: 3</b>	<b>Self Analysis</b> Understanding self— Attitude, aptitude, assertiveness, self esteem, Confidence buildings. SWOT Analysis – concept, how to make use of SWOT Concept of motivation.	09
<b>Unit: 4</b>	<b>Self Development</b> Stress Management –Concept, causes, effects and remedies to Avoid / minimize stress. Health Management – Importance, dietary guidelines and exercises. Time management- Importance, Process of time planning, Urgent Vs importance, Factors leading to time loss and ways to handle it, Tips for effective time management. EMOTION-CONCEPT, TYPES, CONTROLLING, EMOTIONAL INTELLIGENCE. CREATIVITY-CONCEPT, FACTORS ENHANCING CREATIVITY. THINKING – ANALYTICAL & LOGICAL THINKING, HIGHER ORDER THINKING GOAL SETTING – CONCEPT, SETTING SMART GOAL.	20
<b>Unit: 5</b>	<b>Study habits</b> Ways to enhance memory and concentration. Developing reading skill. Organisation of knowledge, Model and methods of learning.	10
<b>Total</b>		<b>48</b>

<b>Text Books:</b>			
Name of Authors	Title of the Book	Edition	Name of the Publisher
Personality Development & Soft Skills	B. K. Mitra		Oxford University Press
E.H. Mc Grath , S.J.	Basic Managerial Skills for All		Prentice Hall of India, Pvt Ltd
Allen Pease	Body Language		Sudha Publications Pvt. Ltd.
Lowe and Phil	Creativity and problem solving		Kogan Page (I) P Ltd
Adair, J	Decision making & Problem Solving		Orient Longman
Bishop , Sue	Develop Your Assertiveness		Kogan Page India
Marion E	Make Every Minute Count		Kogan page India

Haynes			
Pearson Education Asia	Organizational Behavior	Tata McGraw Hill	
Michael Hatton (Canada – India Project)	Presentation Skills	ISTE New Delhi	
-- --	Stress Management Through Yoga and Meditation	Sterling Publisher Pt Ltd.	
Richard Hale, Peter Whilom	Target setting and Goal Achievement	Kogan page India	
Chakravarty, Ajanta	Time management	Rupa and Company	
Marshall Cooks	Adams Time management	Viva Books	
<b>Internet Assistance:</b>			
1.	<a href="http://www.mindtools.com">http://www.mindtools.com</a>		
2.	<a href="http://www.stress.org">http://www.stress.org</a>		
3.	<a href="http://www.ethics.com">http://www.ethics.com</a>		
4.	<a href="http://www.coopcomm.org/workbook.htm">http://www.coopcomm.org/workbook.htm</a>		
5.	<a href="http://www.mapforprofits.org/">http://www.mapforprofits.org/</a>		
6.	<a href="http://www.learningmeditation.com">http://www.learningmeditation.com</a>		
7.	<a href="http://bbc.co.uk/learning/courses/">http://bbc.co.uk/learning/courses/</a>		
8.	<a href="http://eqi.org/">http://eqi.org/</a>		
9.	<a href="http://www.abacon.com/commstudies/interpersonal/indisclosure.html">http://www.abacon.com/commstudies/interpersonal/indisclosure.html</a>		
10.	<a href="http://www.mapnp.org/library/ethics/ethxgde.htm">http://www.mapnp.org/library/ethics/ethxgde.htm</a>		
11.	<a href="http://www.mapnp.org/library/grp_cnfl/grp_cnfl.htm">http://www.mapnp.org/library/grp_cnfl/grp_cnfl.htm</a>		
12.	11) <a href="http://members.aol.com/nonverbal2/diction1.htm">http://members.aol.com/nonverbal2/diction1.htm</a>		
13.	<a href="http://www.thomasarmstron.com/multiple_intelligences.htm">http://www.thomasarmstron.com/multiple_intelligences.htm</a>		
14.	<a href="http://snow.utoronto.ca/Learn2/modules.html">http://snow.utoronto.ca/Learn2/modules.html</a>		
15.	<a href="http://www.quickmba.com/strategy/swot/">http://www.quickmba.com/strategy/swot/</a>		
<b>Reference Books:</b>			
Name of Authors	Title of the Book	Edition	Name of the Publisher
Darlene Mannix	Life Skills Activities for Secondary Students with Special Needs	5th	Kindle Edition



Autism or Asperger's,	1001 Great Ideas for Teaching and Raising Children with Autism	2 nd	Kindle Edition
	or Asperger's,		
How to Become Smarter	Nikolai Shevchuk		Kindle Edition

**Suggested List of Laboratory Experiments :**

1. Conduct Guest Lectures.
2. Conduct industrial visit
3. Conduct Seminar/Group Discussions.

**Suggested List of Assignments/Tutorial :**

**S. No The Term Work Will Consist Of Following Assignments.**

a) Library search:-

Visit your Institute's Library and enlist the books available on the topic given by your teacher. Prepare a bibliography consisting name of the author, title of the book, publication and place of publication.

Enlist the magazines, periodicals and journals being available in your library. Select any one of them and write down its content. **Choose a topic for presentation**

b) Attend a seminar or a guest lecture, listen it carefully and note down the important points and prepare a report of the same.

c) Visit to any one place like historical/office/farms/development sites etc. and gather information through observation, print resources and interviewing the people.

d) Prepare your individual time table for a week –

List down your daily activities.

Decide priorities to be given according to the urgency and importance of the activities.

Find out your time wasters and mention the corrective measures.

Keep a diary for your individual indicating- planning of time, daily transactions, collection of good thoughts, important data, etc

Find out the causes of your stress that leads tension or frustration .Provide the ways to Avoid them or to reduce them.

Undergo the demonstration on yoga and meditation and practice it. Write your own views, feeling and experiences on it.

MINI PROJECT on Task management. Form different teams from taking 5-8 students in a group. Decide any task to be completed in a stipulated time with the help of teacher. Write a report considering various steps in a task management.

**NOTE: - THESE ARE THE SUGGESTED ASSIGNMENT FOR GUIDE LINES TO THE SUBJECT TEACHER. HOWEVER THE SUBJECT TEACHERS CAN SELECT, DESIGN ANY ASSIGNMENT RELEVANT TO THE TOPIC, KEEPING IN MIND THE OBJECTIVES OF THIS SUBJECT.**

