1. Course title : TECHNICAL ENGLISH
2. Course code : GT/FT-101
3. Semester : 1st

4. Rationale of the course: A diploma student is expected to be proficient in English language and pursue the existing course of study to handle the future jobs. The content of the text includes the aspects related to language skills.

Course Outcome: After completion of this course student will be able to speak and write English language, its grammar, and sentences.

CO1: Basic concepts of determiners, formation of words, changes of voice and phrases.

CO2: Writing single sentences and multiple sentences for the passages.

CO3: Illustrate the conversation practice and dialogue making.

CO4: Writing job application with bio-data.

5. Teaching scheme (in hours)

Lecture	Tutorial	Practical	Total
42+3=45	0	-	45

6. Examination Scheme

Theory				Practical				
Examination Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Examination		Sessional		Total Marks
70	30	100	30	-	-	-	-	100

7. Detailed Course Content:

Chapter No	Chapter Title	Content	Hours
Unit-I	Grammar	**1. Vocabulary items** i) Word forms ii) One word substitute iii) Phrases iv) Pair of words	8
		2. Common Errors i) Passive and Active sentences ii) Preposition-Time, Direction, Place, Position, Agent, Relation. iii) Determination- Articles, Some, Any, All, No, And, More, Much, Many, A little, A few	8
Unit-II	Comprehensions /paragraph writing	2.1 Write, single sentence answers to questions. Write multiple sentence answer to questions. Express ideas effectively in written form.	6
Unit-III	Conversion Practice	**3. Situations** i) Requests	12

		ii) Inquiries and information iii) Pronunciation practice iv) OHP presentation an any relevant topic v) Power point presentation on any relevant topic vi) Group discussion.	
Unit IV	Writing Practices	Writing Job Application with C.V/ Resume/Bio-Data, Memos, Emails, Netiquettes, Business correspondence Letter of enquiry, Letter of Placing Orders, Letter of Complaint	8

8. **Distribution of Marks:**

Chapter No	Chapter Title	Type of Question			Total Marks
		Objective Type	Sort Questions	Descriptive Questions	
Unit I	Grammar	13	4	-	17
Unit II	Comprehensions /paragraph writing	1+1	8	15	25
Unit III	Conversation Practice	-	-	15	15
Unit IV	Writing Job Application with C.V. /Resume/ Bio-Data	-	3	10	13
Total		15	15	40	**70**

9. Suggested Implementation Strategies: The syllabus can be completed by regular classes.

10. Suggested learning Resource:

- Essential English grammar by Raymond murphy Cambridge.
- High school English grammar and composition by wren and martin.

1. Course Title **:** TECHNICAL SCIENCE
2. Course Code **:** GT/FT-102
3. Semester **:** First
4. Rationale of the course : This part of the course explains the fundamentals of Physics and Chemistry which will develop basic understanding physics and chemistry by the students.

5. Teaching Scheme (in hours)

Lecture	Tutorial	Practical	Total
44 (Chemistry=22,Physics=22)	-	32 (Chemistry =16,Physics=16)	76

(Technical Science is comprised of two parts- Physics and Chemistry)

6. Examination Scheme :

Theory				Practical			
Examination Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Practical	Practical Assessment	Total Marks	Pass Marks
70 (Chemistry=35 Physics=35)	30	100	30	50 (Chemistry=25 Physics =25)	50	100	30

7. Detailed Course Content:

A) Physics (35 Marks)

Chapter No.	**Chapter Title**	**Content**	**Hours**
1	UNIT AND DIMENSION	**1.1** Concept of unit, fundamental and derived units, Dimension and dimensional equation of physical quantities with examples.	2hr
2	BASIC MECHANICS	**2.1** Scalar and Vector quantity, representation of a vector, vector addition and subtraction (simple idea) **2.2** Explanation of speed and velocity, acceleration and retardation, **2.3** Newton's laws of motion, Statement and explanations of First, second and third Newton's laws of motion, Definition and unit of force. **2.4** Circular motion, angular velocity, relationship between angular velocity and linear velocity, centripetal force	1hrs 1hrs 2hrs 2hrs 2hrs 1hrs

		and centrifugal force, Simple pendulum, numerical problems. **2.5** Friction, static friction and limiting friction, laws of limiting friction, co-efficient of friction, method of removal of friction, numerical problems.	
3	WORK, POWER AND ENERGY	**3.1** Work, power and energy, Explanation, mathematical expression and dimensions, potential and kinetic energy, their mathematical expressions, Principle of conservation of energy and its proof in case of a freely falling body.	2hrs
4	HEAT & THERMODYNAMICS	**4.1** Concept of heat and temperature, measurement of temperature, different scale of temperature and their relationship thermometer, numerical problems.	2hrs
5	LIGHT	5.1 Light, properties of light, Reflection of light, laws of reflection, image, idea of real and virtual image, concept of mirror, spherical mirrors- concave and convex mirror, mirror formula to be assumed, reflection on spherical mirror, nature and size and position of images for the different position of object, numerical problems. 5.2 Refraction of light, laws of refraction, definition and explanation of refractive index. 5.3 Prism, refraction through prism, deviation, angles of deviation its explanation. 5.4 Dispersion of light through prism, colours and pigments of a body, Primary and complimentary colour, colour filters, additive and subtractive primaries.	2hrs 1hr 1hr 1hr
6	ATOMIC PHYSICS	6.1 X-rays, Properties and use X-ray and use.	1hr

8. **Distribution of Marks:**

Chapter No.	Chapter Title	Type of Question			Total Marks
		Objective type Compulsory	Short Question	Descriptive Question	
1	UNITS AND DIMENSIONS	1	2	2	5
2	BASIC MECHANICS	1	2	6	9
3	WORK, POWER AND ENERGY	1	1	3	5
4	HEAT & THERMODYNAMICS	1	2	3	6
5	LIGHT	1	1	5	7
6	ATOMIC PHYSICS			3	3
	Total=	05	08	22	35

9. Suggested Implementation Strategies: By using Models, Video, PPT etc.

Chapter No	Chapter Title	Content	Hours
Unit-1	Molecular Mass	1.1Molecule, Molecular formula, Molecular Mass, Mole- Defintion-Simple calculations. 1.2Avogadro's hypothesis, Relationship between Molecular Mass and vapour density Avogadros number- Simple problem 1.3Equivalent mass and gram equivalent mass of acids, bases and salts.	4
Unit -II	Acids and Bases	2.1 Definition, theories of acids and bases. 2.2Definition of P^{H} & $P^{OH,}$ Numerical problems, 2.3Buffer solutions- definition, type and example- Buffer action . Application	4
Unit-III	Oxidation-Reduction	3.1Definition, Electronic Concept of oxidation and reduction- Example.	2
Unit-IV	Solution	4.1 Methods of expressing Concentration of a solution, Molarity, Molality, Normality, Percentage, grams per litre. Simple problem. 4.2Standard solution, Normal solution, Titration, Indicators, Definitions.	3
Unit-V	Technology of Water	5.1 Sources- Hard water, Soft water, Disadvantages of hard water in boilers, Softening of hard water, 5.2 Preparation of Municipal water, Estimation of hardness by EDTA method,	3
Unit-VI	Organic Chemistry	6.1 Alkane, Alkene, Alkyne, Cyclic compounds, Aldehydes, Organic acids, Nomenclature, 7.2 Isomerism.	4
Unit-VII	Plastics and Polymers	7.1Definition, types of polymerizations- classification of polymers. 7.2Some important plastics materials-their properties and uses-namely- Polythene, Bakelite, PVC, Polystyrene nylon, PVA etc.	2

B) Chemistry (35 Marks)

8..Distribution of Marks :

Chapter no	Chapter Title	Type of Question			Total Marks
		Objective Type	Short Questions	Descriptive Questions	
Unit 1	Molecular Mass	1	2+2	5	5
Unit II	Acids and Bases	1	2	5	5
Unit III	Oxidation-Reduction	1	1		3
Unit IV	Solution			5	5
Unit V	Technology of Water	1	1	5	7
Unit VI	Organic chemistry	1	2		7
Unit-VII	Plastics and Polymers				3
		5	10	20	35

9. Suggested Implementation Strategies : The syllabus can be completed by regular classes, special classes using audio –visual aids, tutorial classes and providing writing materials. Practical classes in the laboratory helps students to understand the subject.

10. Suggested learning Resources :

I. Chemistry for Polytechnic by Jyotishmoy Bora, Raju Ojah.
II. Modern Approach to Chemistry- Y. R. Sharma, Baidya Nath Bhyan, Sudarson Barua-
III. Part I and Part-II.
IV. Senior Secondary Chemistry- Part I and Part II- Kamalesh Choudhury, Satyendra
V. Kumar Choudhury
VI. Simplified Polytechnic Chemistry, Vol-II ,By Vinay Yadav.

1. Course Title **:** TECHNICAL SCIENCE – (PRACTICAL)
2. Course Code **:** GT/FT-102
3. Semester **:** First
4. Objectives : At the end of the program the student will able to prepare standard solution and determine strength of acids and bases.

5. Teaching and Examination Scheme:

Instructions		Examination			
Hours/ week	Hours/semester	Internal assessment	Practical Examination	Total	Pass Marks
2	32(Chemistry + Physics)	50 (Chemistry- 25 + Physics- 25)	50(Chemistry=25, Physics=25)	100	30

6. Detailed Course Content:

Content (Chemistry)	Hours
1. Preparation of Standard solution of Na_2CO_3.	4
2. Titration -Determination of strength of acids and bases by volumetric titration.	12

Content (Physics)

1. To find out area of a rectangle with the help of VERNIER CALLIPERS.	2
2. To determine the volume of solid body (sphere, cube or cylinder) by slide calipers.	2
3. To find the volume of hollow cylinder by VERNIER CALLIPERS	2
4. To find the thickness of wall of tube by VERNIER CALLIPERS.	2
5. To find the cross sectional area of wire or tube by SCREW GAUGE.	2

1. COURSE TITLE : APPLIED MATHEMATICS
2. COURSE CODE : GT/FT-103
3. SEMESTER : 1st
4. RATIONAL OF THE SUBJECT/ COURSE: Mathematics makes sense of information, experience, and ideas by engaging students to think:

- flexibly and creatively * critically and effectively *strategically and logically. * Accuracy

Here Mathematics will help students of Textile Technology at home, at work, at industry and in the community by problem-solving strategies, interpreting any type of data and communicating ideas. Contents of this subject will form foundation for further study in mathematics.

5. Course Outcome:
After completion of this course students will be able to-

- recognize the importance and value of mathematical training, and approach to problem solving, on a diverse variety of disciplines;
- be familiar with a variety of examples where mathematics helps accurately explain abstract or physical phenomena;
- recognize and appreciate the connections between theory and applications;
- be able to independently read mathematical literature of various types, including survey articles, scholarly books, and online sources; a
- Communicate and understand mathematical statements, ideas and results, both verbally and in writing, with the correct use of mathematical definitions, terminology and symbolism (Communication Skills).
- have a concept on natural number, complex number , imaginary number etc. Define Modulus of complex number cube root of unity. Solve geometry by Application of complex number. To find roots of a Quadratic equation , compare relation between roots and coefficient ,Type of nature of roots , to form quadratic equation from given roots etc.
- have a concept of volume and surface area of rectilinear figure and curvilinear figures , like Cylinder , Sphere , Cone , Prism, Pyramid.
- Students will be able to represent and statistically analyse data both graphically and numerically. Describe concept of Central Tendency and Measure of dispersion. To compare among mean median and mode . Define and basic concept of Range, Quartile Deviation, Explain Mean Deviation and Standard deviation.

6. TEACHING SCHEME (IN HOURS)

LECTURE	TUTORIAL	PRACTICAL	TOTAL
42+3	-	---	45

7. EXAMINATION SCHEME :

Theory				Practical			
Examination Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Practical	Practical Assessment	Total Marks	Pass Marks
70	30	100	30	-	-	-	-

8. DETAILED CONTENTS

CH. NO	CH. NAME	CONTENT	HOURS
		GROUP-A	
1.	Complex number	1.1 Definition of Complex number. 1.2 Geometrical interpretation. 1.3 conjugate complex number 1.4 Modulus , Amplitude etc. 1.5 Polar form 1.6 Algebraic operation on complex number. 1.7 Cube root of unity 1.9 Square root of complex number. 1.8 Solve Problem.	2hrs
2.	Variation	2.1 Definition 2.2 Direct variation, indirect variation , Joint variation 2.3 Properties of variation. 2.4 Problem solve.	2hrs
3.	Quadratic equation	3.1 Basic concept 3.2 Nature of roots 3.3 Relation between roots and co-efficients. 3.4 Formation of quadratic equation 3.5 Solve problem.	3hrs
4.	Arithmetic and geometric progression.	4.1 Basic concept of A.P and G.P 4.2 nth term formulae for A.P and G.P 4.3 Sum to nth term of A.P and G.P . 4.4 Arithmetic mean and Geometric mean 4.5 Solve problem .	
5.	Logarithm	5.1 Definition of Logarithm 5.2 Laws of logarithm 5.3 change of base. 5.4 Some special cases. 5.5 Solve simple problem .	3hrs
6.	Permutation and combination	6.1 Basic concept of Permutation and combination. 6.2 Factorial notation 6.3 Fundamental Principle 6.5 Meaning of ${}^{n}P_{r}$ and ${}^{n}C_{r}$. 6.6 Theorem related to Combination. 6.7 Solve simple problem.	3hrs

GROUP B

1.	Revision of Trigonometric ratios of acute angles	1.1 Trigonometric function 1.2 Height and distance 1.3 Solve examples	2hrs
2.	Trigonometric ratios of Associated Angles	2.1 ASTC Rule 2.2 Results of $\sin(-\theta)$; $\cos(-\theta)$; $\sin(90^o+\theta)$; $\cos(90^o+\theta)$; $\sin(90^o-\theta)$; $\cos(90^o-\theta)$; $\sin(180^o+\theta)$; $\cos(180^o+\theta)$; $\sin(180^o-\theta)$; $\cos(180^o-\theta)$ 2.4 Solve examples	2hrs
3.	Compound Angle	3.1 Addition formula and Subtraction formula for compound angle. 3.3 Solve examples	2hrs
4.	Transformation of sums and products.	4.1 Expression of sum and difference as product. 4.2 Solve examples	2hrs
5.	Multiple and sub multiple Angle.	5.1 sin2A ; cos2A ; sin3A ; cos3A…. 5.2 Related problem	2hrs
6.	Trigonometric Identities	6.1 Basic concept 6.2 Related Problems	2hrs
	GROUP - C		
1.	Mensuration	1.1 Area of two dimensional figure. 1.2 Area of a regular Polygon of n side 1.4 Volume and surface areas of Regular solids of Prism , Cylinder, Sphere , Cone	1hrs 2hrs 5hrs
	GROUP-D		
1	Frequency distribution	.1 Frequency, cumulative frequency, 1.2 Frequency distribution table. 1.3 Graphical representation- Histogram, frequency curve, ogive etc.	2hrs
2	Measure of Central Tendency	2.1 Basic concept of Central Tendency. 2.2 Average or Arithmetic mean or Mean. 2.3 Median 2.4 Mode 2.5 Solve Problem	3hrs

3	Measure of Dispersion	3.1Definition and type of measures of dispersions. 3.2 Absolute and relative measure of Range.3 3.3 Quartile Deviation. 3.4 Average deviation or mean deviation 3.5 Standard Deviation. 3.6 Variance and co-efficient of variation. 3.7 Solve Problem. .1 Frequency, cumulative frequency	4hrs

9. Distribution of Marks:

Chapt. No	Chapt. Name	Type of question			Total Marks
		Objective Type	Short Question	Descriptive Type	
GROUP-A					
1.	Complex number	1	2		3
2.	Variation	1	2		3
3.	Quadratic equation	1	1 ½	3	5 ½
4.	Arithmetic and geometric progression.	1	2	3	6
5.	Logarithm	1	1 ½	3	5 ½
6.	Permutation and comb.	1		3	4
GROUP-B					
1.	Revision of Trigonometric ratios of acute angles		2		2
2.	Trigonometric ratios of Associated Angles	1	2		3
3.	Compound Angle	1		3	4
4.	Transform. of sums & prod.	1		3	4
5.	Multiple and sub multiple Angle.	1		3	4
6.	Trigonometric Identities			3	3
GROUP-C					
1.	Mensuration	1+1		4+4 =8	10
GROUP-D					
1.	Frequency distribution	1	2		3
2.	Measure of Central Tendency	1		**4**	5
3.	Measure of Dispersion	1		4	5
		15	**15**	**40**	**70**

10. Suggested Implementation Strategies : Students should be provided with opportunities encouragement, and assistance to engaging thinking, reasoning, and sense making in the mathematics classroom. The course have to be completed within regular classes, Three sessional Exams and 7 Tutorial classes are included in the Syllabus. In Tutorial classes consistent engagement in practices of mathematics may lead to a deeper understanding of mathematics. Study material can also be provided to them. Mathematical Model can be used in some cases to translate a real world problem into a mathematical expression.

10.1 Book List :

1. Mathematics for Polytechnics by S.P Deshpande.
2. Engineering Mathematics by H.K Das
3. Polytechnic Mathematics Published by Moni Manik

10.2 Manuals: Mathematical Dictionary/ encyclopaedia as a hand book .

10.3 Others: Model question Paper/ question bank can be discussed with Help of internet

1. Course title **:** TEXTILE FIBRE
2. Course code **:** GT/FT-104
3. Semester **:** 1st
4. Course outcome : Upon completion of the course, students will be able to:

CO-1 To describe and recognize plants and animals those are able to provide fibres for textile use.
CO-2 Identify products produced by various animal and vegetable fibers.
CO-3 Understand and describe the basic principles of the production methods of manmade fibres of both natural and synthetic polymers.
CO-4 In-depth knowledge and critical understanding of the specific characteristics and properties which in turn influence and helps in determining the properties of the produced yarns and fabrics.
CO-5 Knowledge and skills for the identification of natural and man-made fibers.

5. Teaching scheme (in hours)

Lecture	Tutorial	Practical	Total
45	-	32	77

6. Examination Scheme

Theory				**Practical**			
Examination Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Practical	Practical Assessment	Total Marks	Pass Marks
70	30	100	30	25	25	50	15

7. Detailed Course Content:

Ch. No	**Chapter Title**	**Content**	**Hours**
Unit-I	Introduction to Textile Fibre	• Characteristics of Textile Fibre. • Classification of Textile Fibre on Basis of its source. • Classification of Textile Fibre on the Basis of its origin.	5
	Natural Fibre: Cotton Fibre	• Commercial Varieties of Cotton. • Physical Properties of Cotton. • Chemical Properties of Cotton. • Brief study of uses of Cotton	4
	Bast Fibres	• Extraction process of Jute, flax , Ramie fibre and their Uses	3
	Silk	• Rearing, Reeling and Throwing of Silk Fibre. • Degumming of Silk Fibre. • Physical and Chemical Properties of Silk Fibre. • Different Uses of Silk Fibre.	5
	Wool	• Different Varieties of Wool. • Uses of Wool Fibre.	4

Unit II	Regenerated Fibre: Viscose Fibre, Cuprammonium fibre	• Raw material of Viscose/ Cuprammonium fibre. • Physical and Chemical Properties of Viscose / Cuprammonium Fibre. • Uses of Viscose / CuprammoniumFibre.	5
	Polyester Fibre	• Raw material of Polyester fibre. • Physical and Chemical Properties of Polyester Fibre. • Uses of Polyester Fibre.	3
	Nylon Fibre	• Raw material of Nylon Fibre. • Physical and chemical Properties of Nylon Fibre. • Uses of Nylon Fibre.	4
	Acrylic Fibre	• Raw material Acrylic Fibre. • Physical and Chemical Properties of Acrylic Fibre. • Uses of Acrylic Fibre.	4
Unit III	Study of Mineral and new fibres	• Glass Fibre • Carbon Fibre. • Spandax • Lycra • Kevlar and Twaron	5

8. **Distribution of Marks:**

Chapter No	Chapter Title	Type of Question			Total Marks
		Objective Type	Sort Questions	Descriptive Questions	
Unit I	Introduction to Textile Fibre	1	2	5	8
	Natural Fibre: Cotton Fibre	1	1	5	7
	Bast Fibre	1	2	5	8
	Silk	1	1	5	7
	Wool	1	2	5	8
Unit II	Study of Regenerated Fibre	1	2	5	8
	Polyester Fibre	1	1	5	7
	Nylon Fibre	1	2	-	3
	Acrylic Fibre	1	1	5	7
Unit III	Study of Mineral and new Fibres	1	1	5	7
Total		**10**	**15**	**45**	**70**

9. Suggested Implementation Strategies: All the contents can be completed within regular classes. Special help, like, audio-visual aids, OHP may be taken for showing notes, video etc.

10. Suggested learning Resource :

i) Textile Fibre :- Hess. ii) Fibre Science :-Mr.R. Gopal Krishnan, Mr. V. Kasinathan, Mr. K. Bogyam. iii)Textile Fibre :- Dr. V.A. Shenai, vi) Fibre Science & Technology:- Mr. S. Jayaprakasan, Mr. R. Gopal Krishnan, Mr. V. Kasinathan.

1. **Course Title** **:** TEXTILE FIBRE (PRACTICAL)
2. **Course Code** **:** GT/FT-104
3. **Semester** **:** 1st
4. **Objectives:**
   i) To understand the behaviour of fibre properties.
   ii) To identify the various fibres by handling and testing.

5. **Examination Scheme**

Theory				Practical				
Examination		Sessional		Practical Viva		Sessional		
Full Marks	Pass Marks	Full Marks	Pass Marks	Full Marks		Full Marks		Pass Marks
--	--	--	--	25		25		15

6. **Detailed Practical List:**

I. Find out the Relative Humidity of the testing laboratory.

II. Identification of textile fibre by:

- Burning test
- Chemical Test
- Microscopic test
- Solvent test

III. To practice the identification of fibres by visual / handle & feel.

IV. To collect different fibres yarn / fabric samples write their important properties and paste in the journal.

V. To find out the moisture regain of various fibres.

7. **Suggested learning Resources:**

- Indian Textile Journal
- Asian Textile Journal
- Textile Trends
- Textile Technical
- Visit related Industry.
-

9. Book List:

Sr. No.	Author	Title	Publication
1.	S.P. Mishra	Fibre Science and Technology	New age International (p) Ltd Daryaganj, New Delhi-110002
2.	E.B. Groover and D.S. Hamby	Hand Book of Textile Testing and Quality Control 1st U.S. Edition 1960. Wiley Eastern Reprint 1988	Mohinder Singh Sejwal (for Wiley Eastern Ltd) New Delhi, India.
3	R.Gopalakrishnan and T.Murugan	Fibre Science	.

1. Course title **:** ENGINEERING GRAPHICS
2. Course code **:** GT/FT-105
3. Semester **:** 1st
4. Course Objective: To understand the fundamentals of Engineering Drawing with different views, profiles in day to day Engineering practices and layouts.

5. Teaching scheme (in hours)

Lecture	Tutorial	Practical	Total
-	12	80	92

6. **Examination Scheme**

Theory				Practical			
Examination Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Practical	Practical Assessment	Total Marks	Pass Marks
-	-	-	-	100	50	150	50

7. **Detailed Course Content:**

Ch. No	Chapter Title	Content	Hrs
Unit-I	Introduction	1.1.Drawing as a medium of communication 1.2. Use and care of Drawing Instruments Assignments: Such as Drawing of Horizontal and Vertical Lines, mosaic pattern, angular pattern, with circular pattern.	6
Unit-II	Geometrical Construction	**(It includes the constructions of non-circular curves)** **Advantages of drawing instruments should be utilized rather the mathematical techniques.** 2.1. Division of line and arc, contraction of angles, drawing of triangle, perpendicular, circular arc, square, regular Polygon. To locate the centre of an arc. 2.2. To divide circle into different square parts. 2.3. To draw different tangent arcs 2.4. Centre line, body cut line(IS-696) 2.5. To draw 35^0,45^0,60^0,90^0 angle. 2.6. Curves , Helex, Ellipsoid, Trochoid etc	21
Unit-III	Techniques of Lettering	3.1. lettering single stroke (IS-696) liner vertical or inclined type lettering. Assignment: practice assignments 3.2. Inclined lettering	6
Unit-IV	Scales	4.1. Plain Scales 4.2. Diagonal Scales Assignments: On plain & Diagonal Scales only	9

Unit-V	Orthographic Projection:	5.1. Third angle projection of plain objects 5.2. Third angle projection of plane objects with punch holes and cylindrical features. 5.3. Multi view projection drawing with hidden features i.e. use of hidden lines. Assignments: Practice assignments. It should include the use of dimensioning.	12
Unit-VI	Sectioning:	6.1. Hidden lines (IS-696) objects with hidden features. 6.2. Full Section, half section 6.3. Cutting plane line and cutting planes.(IS-696) Assignments: Practice assignments. It should include the simple block with curve on hidden features.	9
Unit-VII	Free hand Sketches	7.1. Sewing Machine, Scissors, table, thread profile etc. 7.2. Engineering tools	9

8. **Distribution of Marks:**

Ch. No	Chapter Title	Type of Question			Total Marks
		Objective Type	Sort Questions	Descriptive Questions	
Unit I	Introduction	5	3		8
Unit II	Geometrical Construction	3	3	15	21
Unit III	Techniques of Lettering	-	2	10	12
Unit IV	Scales	2	2	10	14
Unit V	Orthographic Projection:	3	-	15	18
Unit VI	Sectioning:	2	-	10	12
Unit VI	.Free hand Sketches			15	15
Total		**15**	**10**	**75**	**100**

9: Suggested Implementation Strategies: By providing some dummy models during class hours.

10: Suggested Learning Resources:

1. Elementary Engineering Drawing [Plane and Solid Geometry] By N.D. Bhatt, V.M. Panchal.
2. Geometrical and Machine Drawing By N.D. Bhatt

1. Course title **:** SEWING WPRKSHOP
2. Course code **:** GT/FT-106
3. Semester **:** 1ST
4. Rationale **:** The students are expected to know various types of machinery and equipment used in manufacturing of garments. They should be able to operate and maintain the machinery and rectify the common defects. The subject intends to develop such skills in the students.

5. **Teaching scheme (in hours)**

Lecture	Tutorial	Practical	Total
-	-	90	90

6. **Examination Scheme**

Theory				Practical			
Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Practical	Practical Assessment	Total Marks	Pass Marks
-	-	-	-	50	50	100	30

7. **Detailed Course Content:**

Unit	Topics	Sub Topics	Hours
Unit- I	Orientation of lock stitch machine	• Parts and functions of sewing machine • Operation of sewing machine • Threading • Bobbin winding • Tension adjustment • Stitch length adjustment • Hands on experience on the machine for speed and control	40
Unit-II	Basic Sewing line practice (Using a single needle lock stitch machine, both in manual and power driven)	• Basic Care & maintenance of sewing machines • Practice sewing on muslin(two layers of fabric) by sewing on straight lines, zig zag lines, wavy lines, • How to do minor and mechanical adjustments while sewing • Problems of stitch formation, problems of pucker and problems of damage to the fabric along the stitch line • Fabric grainlines and how to differentiate the right side of the fabric from the wrong side before cutting and sewing.	40
Unit-III	Sewing Machine types	• Types of sewing machine and how to identify them • Sewing machines for domestic use, industrial use, specialized sewing machines and automats used in the industry.	10

1.Course Title **:** DEVELOPMENT OF LIFE SKILL -I
2 Course Code **:** LS-110
3 Semester : First
4. **Aim :-This subject is kept to**

- Conduct different session to improve students memory Power
- Conduct different session to improve time management skills
- Motivate student to face realistic problem with confidence and positive approach

Objective: - This course will enable the students to:

- Develop reading skills
- Use techniques of acquisition of information from various sources
- Draw the notes from the text for better learning.
- Apply the techniques of enhancing the memory power.
- Develop assertive skills.
- Prepare report on industrial visit.
- Apply techniques of effective time management.
- Set the goal for personal development.
- Enhance creativity skills.
- Develop good habits to overcome stress.

Face problems with confidence

5. Teaching scheme (in hours)

Lecture	Tutorial	Practical	Total
15	-	30	45

6. **Examination Scheme**

Theory				Practical			
Full Marks	Sessional Full Marks	Total Marks	Pass Marks	Practical	Practical Assessment	Total Marks	Pass Marks
-	-	-	-	25	25	50	15

DETAILED COURSE CONTENT

THEORY:

UNIT	TOPIC/SUB-TOPIC	TOTAL HRS.

Unit -1 **Importance of DLS**
Introduction to subject, importance in present context ,application **01**

Unit -2 **Information Search**
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. **02**

Unit – 3 **Written communication**
Method of note taking
Report writing –Concept, types and format. **01**

Unit – 4 **Self Analysis**
Understanding self—
Attitude, aptitude, assertiveness, self esteem,
Confidence buildings. Concept of motivation. **02**

Unit – 5 **Self Development**
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
Goal setting-concept, Setting smart goal **06**

Unit – 6 **Study habits**
Ways to enhance memory and concentration.
Developing reading skill.
Organisation of knowledge,
Model and methods of learning. **03**

SUGGESTED LEARNING RESOURCES
Reference Books:

1. Personality Development & Soft Skills - B. K. Mitra, Oxford University Press
2. Basic Managerial Skills for All - E.H. McGrath , S.J., Prentice Hall of India Pvt Ltd
3. Body Language - Allen Pease, Sudha Publications Pvt. Ltd.
4. Creativity and problem solving - Lowe and Phil, Kogan Page (I) P Ltd
5. Decision making & Problem Solving - Adair, J, Orient Longman
6. Develop Your Assertiveness - Bishop , Sue, Kogan Page India
7. Time management - Chakravarty, Ajanta, Rupa and Company
8. Life Skills Activities for Secondary Students with Special Needs - Darlene Mannix, Kindle Edition

Internet Assistance:
1) http://www.mindtools.com
2) http://www.stress.org
3) http://www.ethics.com
4) http://www.coopcomm.org/workbook.htm
5) http://www.mapfornonprofits.org/
6) http://www.learningmeditition.com http://bbc.co.uk/learning/courses/
7) http://eqi.org/
8) http://www.abacon.com/commstudies/interpersonal/indisclosure.html

9) http://www.mapnp.org/library/ethics/ethxgde.htm
10)http://www.mapnp.org/library/grp_cnfl/grp_cnfl.htm
11)http://members.aol.com/nonverbal2/diction1.htm
12)http://www.thomasarmstron.com/multiple_intelligences.htm
13)http://snow.utoronto.ca/Learn2/modules.html
14)http://www.quickmba.com/strategy/swot/

Practical :
Suggested List of activities:

- 1 Conduct Guest Lectures.
- Conduct Industrial visits.
- Conduct Seminar/Group Discussions.

Suggested List of Assignments/Tutorial :

The Term Work Will Consist Of Following Assignments.

1. 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.

2 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.**

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

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

5 Prepare your individual time table for a week –
(a) List down your daily activities.
(b) Decide priorities to be given according to the urgency and importance of the activities.
(c) Find out your time wasters and mention the corrective measures.

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

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

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

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.