

Department of Applied Sciences & Humanities
Dr. B. R. Ambedkar Govt. Polytechnic Ambota
Distt. – Una (H.P.)

LESSON PLAN

Program Name	Computer Engineering
Subject Name	Applied Mathematics-I
Subject Code	BS101
Semester	I st
Subject Teacher Name	Sandeep Kumar

Evaluation Scheme

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	T	Th	Pr	Total	Th	Pr	Total
1.	Applied Mathematics-I	3	1	50	-	50	100	-	100
Reference Books		(i) , B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition,2007							
		(ii) S.S. Sabharwal, Sunita Jain, Eagle Parkashan, Applied Mathematics, Vol. I & II, Jalandhar.							

Course Outcomes (COs)

CO – 1	Apply the fundamental concepts of trigonometry to solve mathematical problems.
CO – 2	Analyze mathematical functions and evaluate limits using standard limits and methods such as factorization, substitution, and rationalization.
CO – 3	Apply differentiation techniques, including first principles and rules of differentiation, to solve problems involving algebraic, trigonometric, and inverse trigonometric functions.
CO – 4	Solve algebraic operations on complex numbers; represent them geometrically using the Argand diagram, and use partial fraction decomposition to simplify rational expressions.
CO – 5	Apply the concepts of permutations, combinations, and the binomial theorem to solve counting problems.

Teaching Plan

	Name of Topic	Proposed Date	Actual Date	Remarks
UNIT-1 Basic Trigonometry	Concept of angles.	11/08/2026		
	Measurement of angles in degrees, grades and radians and their conversions	11/08/2026		
	radian measure formula	14/08/2026		
	(Arc Length Formula in	18/08/2026		

	radians) and simple related problems.			
	T-Ratios of Allied angles (without proof).	18/08/2026 21/08/2026		
	Sum, difference formulae and their applications (without proof).	22/08/2026 25/08/2026		
	Product formulae (Transformation of product to sum, difference and vice versa).	25/08/2026 28/08/2026		
	Graphs of $\sin x$, $\cos x$.	29/08/2026		
UNIT-II Functions and Limits	Definition of function, Value of a function, Even and Odd Function,	01/09/2026		
	Function of a function. Limit of a function, Standard limits (with proof) $\lim_{x \rightarrow a} \frac{x^n - a^n}{x - a} = n a^{n-1}$ & $\lim_{x \rightarrow 0} \frac{a^x - 1}{x} = \log_e a$ and related questions.	01/09/2026		
	Problems related to find the limit of an algebraic function by using factorization method,	05/09/2026 08/09/2026		
	substitution method and rationalization method.	08/09/2026		
	Class Test-1 (As per HPTSB schedule)	11/09/2026		
UNIT-III Differentiation	Differentiation by first principle ($\sin x$ & $\cos x$).	15/09/2026 15/09/2026		
	Rules of differentiation (sum, product, quotient, chain rule (Differentiation of function of a function).	18/09/2026 19/09/2026 22/09/2026 22/09/2026		
	Differentiation of trigonometric and inverse trigonometric functions,	25/09/2026 26/09/2026 29/09/2026		
	Logarithmic differentiation.	29/09/2026 03/10/2026 06/10/2026 06/10/2026		
	Class Test-2 (As per HPTSB schedule)	09/10/2026		
UNIT-IV	Complex Numbers:	13/10/2026		

**Complex
Numbers and
Partial Fractions**

Definition, real and imaginary parts			
conjugate of a complex number, algebra of complex numbers (Addition, Subtraction, Multiplication and Division).	13/10/2026 16/10/2026		
Additive and multiplicative inverse,	17/10/2026		
solution of a quadratic equation having Discriminant < 0 , Geometrical Representation of a Complex Number - Argand Diagram, m	23/10/2026 24/10/2026		
modulus & amplitude of a complex number, Polar form of a complex number.	27/10/2026		
Partial fractions: Definition of polynomial fraction (proper, improper fractions) and definition of partial fractions.	27/10/2026 30/10/2026		
Problems related to resolve a fraction (proper & improper fractions) into partial fraction with denominator containing non-repeated linear factors.	31/10/2026		

House Test

02/11/2026
To
04/11/2026

UNIT-V

Definition of $n!$, Special case: $0! = 1$,	06/11/2026		
Simplification of factorial expressions,	07/11/2026 13/11/2026		
Permutation: Meaning, formula nPr and simple numerical problems.	17/11/2026 17/11/2026		
Combination: Meaning, formula nCr and simple numerical problems.	20/11/2026		
Binomial theorem (without proof) for positive integral index (expansion and general form);	21/11/202		
binomial theorem for any index (expansion without proof) first and second	27/11/2026 28/11/2026		

**Permutations,
Combinations and
Binomial
Theorem**

	binomial approximation with applications to engineering problems			
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Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1 & Unit-2	15/09/2026		
A-2	Unit-3 & Unit-4	06/10/2026		
A-3	Unit-5	07/11/2026		

House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1 & Unit-2	As per HPTSB Academic Schedule		
Class Test -2	Unit-3			
House Test -1	Unit-1, Unit-2, Unit-3 and Unit-4			


(Signature of Teacher)


(Signature of HOD)

LESSON PLAN

Program Name	DIPLOMA IN Computer Engg.
Course/Subject Name	English and Communication Skills
Course/Subject Code	HS 101
Course/Subject Coordinator Name	Renu Patial

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Communication Skills in English	3(Th)+2(Pr.)	100	50	100	100
Reference books:						
			(1) Essentials of Business Communication, Rajindera Pal J.s Korlahalli-sultan Chand and sons			
			(2) Communication Techniques and Skills, R.K. Chadha -Dhanpat Rai Publication			
			(3) Text Books of ECS Vol. I & II by Alwinder Dhillon & Pramod Singla			
			(4) High School English Grammar Wren and Martin			
			(5) Speaking Effectively by Jremy Comfort: Cambridge			

Course Outcomes: After the completion of the course the students will:

CO1	Explain the fundamentals of Communication, including its principles, process, barriers, and strategies to overcome these.
CO2	Comprehend Listening and writing forms of Communication.
CO3	Demonstrate proficiency In verbal & Non-Verbal Communication Skills in Academic, personal and professional contexts.
CO4	Apply Correct Grammatical Structures in speaking and Writing.

Teaching Plan:

Lect. No.	Name of topic	Proposed Date	Actual date	Remarks
1	Unit-1 Fundamentals of Communication Skills (Introduction of syllabus)	11/08/2026		
2	Concept, Significance and Process of	13/08/2026		

	communication			
3	Levels and types of Communication	14/08/2026		
4	Verbal and Non-verbal Communication	18/08/2026		
5	Formal and Informal communication	20/08/2026		
6	Barriers to Effective communication	21/08/2026		
7	And how to overcome these	25/08/2026		
8	7 Cs for effective communication	27/08/2026		
9	Listening Skills: Significance and Essentials of Active Listening Skills	01/09/2026		
10	Speaking Skills: Significance and Essentials of Effective Spoken Communication,	03/09/2026		
11	Concept and Significance of Soft Skills and life skills	08/09/2026		
12	Role of Communication Skills in Developing Soft Skills and life skills	10/09/2026		
13	Unit-2 Reading Skills: Definition, Meaning and Significance of reading Skills	11/09/2026		
14	Techniques of Reading: SQ3R Method of Reading -Survey, Question, Read, Recite, Review,	15/09/2026		
15	Skimming And Scanning	17/09/2026		
16	Extensive Intensive Reading	18/09/2026		
17	Literature: Daffodils	22/09/2026		
18	Daffodils Exercise and Explanation	24/09/2026		
19	Life Sketch of A.P. J. Abdul Klam	25/09/2026		
20	Life Sketch of A.P. J. Abdul Klam	29/09/2026		
21	Short Story: With the Photographer by Stephen Leacock	01/10/2026		
22	Short Story: With the Photographer by Stephen Leacock	06/10/2026		
23	Unit-3 Functional Grammar and Vocabulary: Tenses	08/10/2026		
24	Tenses	09/10/2026		
25	Change of voice	13/10/2026		
26	Change of voice	15/10/2026		
27	Article	16/10/2026		
28	Parts of Speech: Noun and Pronoun	22/10/2026		
29	Adjective	23/10/2026		
30	Verb	27/10/2026		
31	Adverb	30/10/2026		
32	Conjunction	03/11/2026		
33	Prepositions	05/11/2026		
34	Glossary of administrative terms	06/11/2026		
35	Pair of words	10/11/2026		
36	Synonyms	12/11/2026		
37	Antonyms	13/11/2026		
38	Unit-4 Significance and Essentials components of Writing Skills, Drafting	17/11/2026		

	Notic			
	Circulars	19/11/2026		
0	Official letters & E-mail Etiquettes	20/11/2026		
41	Writing paragraphs through outline	26/11/2026		
42	Resume writing & Forwarding Letters	27/11/2026		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed Date	Actual date	Remarks
A-1				
A-2				

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	Actual date	Re na.ks
CT-I	30% of the syllabus	10.09.2026		
CT-II	Next 30% of the syllabus	06.10.2026		
House Test	80% of the syllabus	04.11.2026		

Signature of Teacher

Signature of HOD

Department of Applied Sciences & Humanities
Dr. B. R. Ambedkar Govt. Polytechnic Ambota
Distt. – Una (H.P.)

LESSON PLAN

Program Name	Computer Engineering
Subject Name	Applied Physics-I
Subject Code	BS103
Semester	1 st
Subject Teacher Name	Pritam Singh Dogra

Study and Evaluation Scheme:

Sr. No.	Name of Subject	Th.		Pr.	Credits	Internal Assessment			External Assessment					Total Marks
		L	T			Th.	Pr.	Total	Th.	Hrs.	Pr.	Hrs.	Total	
2	Applied Physics-I	03	-	02	03	50	50	100	100	3	100	3	200	300

Course Objectives:

Applied Physics covers a wide range of topics that are closely connected to the phenomena occurring in our surroundings. The subject seeks to develop an understanding of the physical world through observation as well as by predicting the behaviour of objects under different conditions. Emphasis is placed on the practical application of physical laws and analytical methods in various technical and engineering fields, highlighting their relevance in real-world situations.

	Name of Topic	Proposed Date	Actual Date
Unit-1	Physical world, Units and Measurements		
	Physical Quantities (Physical Quantities: Fundamental & Derived Quantities)	12-08-26	
	Systems of Units (CGS, FPS, MKS, SI)	13-08-26	
	Units (SI Units)	14-08-26	
	Dimensions and Dimensional Formulae (Definition) and Dimensional Formulae of Physical Quantities)	19-08-26	
	Dimensions and Dimensional Formulae	20-08-26	
	Principle of Homogeneity	21-08-26	
	Dimensional analysis	27-08-26	
	Errors (Instrumental, Systematic, Random & Gross Errors)	28-08-26	
Unit-2	Force and Motion	02-09-26	
		03-09-26	
	Scalar and Vector Quantities (Definition and Examples)		
	CLASS TEST-1		
	Vectors (Representation of Vectors and Types of Vectors)	09-09-26	

	Linear Momentum (Linear Momentum and its SI Unit)	10-09-26	
	Linear Momentum (Linear Momentum and its SI Unit)	11-09-26	
	Angular Displacement, Angular Velocity and Angular Acceleration	16-09-26	
	Circular Motion	17-09-26	
	Relation between Linear and Angular Velocity	18-09-26	
	Angular Momentum (Law of Conservation of Angular Momentum and Applications)	23-09-26	
	Moment of Inertia (Physical Significance + Numerical Problems/ Revision)	24-09-26	
Unit-3	Work, Power and Energy		
	Work (Work and Types of Work)	25-09-26	
	Energy (Energy and Its Forms)	01-10-26	
	Transformation of Energy	07-10-26	
	Kinetic Energy: Definition and Formula	08-10-26	
	CLASS TEST-II	09-10-26	
	Derivation of Kinetic Energy	14-10-26	
	Potential Energy: Definition and Formula	15-10-26	
	Conservation of Mechanical Energy,	21-10-26	
	Power (Power and Numerical Problems)	21-10-26	
Unit-4	Properties of matter		
	Elasticity and Plasticity (Elasticity and Plasticity, Stress and Strain)	23-10-26	
	Types of Stress, Types of Strain	28-10-26	
	Hooke's Law and Modulus of Elasticity	04-11-26	
	Types of Modulus of Elasticity (Youngs Modulus	05-11-26	
	Bulk Modulus and Modulus of Rigidity	06-11-26	
	Pressure (Pressure, Atmospheric Pressure , Gauge Pressure and Absolute Pressure)	11-11-26	
	House Test	01-10-26	
Unit-5	Heat & Temperature		
	Heat & Temperature (Definition of heat and temperature (on the basis of kinetic theory)	12-11-26	
	Difference between heat and temperature	13-11-26	
	Modes of transfer of heat- conduction, convection and radiation with examples	18-11-26	
	Different scales of temperature and their relationship	19-11-26	
	Temperature (Numerical Problems on Temperature Conversion	20-11-26	
	Revision	25-11-26	
	Revision	26-11-26	
	Revision	27-11-26	

Lesson Plan/Lab Plan (Fitting Workshop)

Trade : CSE		Session: Aug-Dec. 2026		
Sem: 1st				
Sr. No.	Name of Practical	Proposed Date	Actual Date	Remarks
1	Safety Precautions of fitting shop and use of personal protective equipment (PPE), demonstration of tools, equipment, sample jobs, Best practices in the concerned shop.	G3 10/8/26		
		G1 17/8/26		
		G2 24/8/26		
2	Introduction and Function of holding/ clamping devices, hand tools and cutting tools.	G3 10/8/26		
		G1 17/8/26		
		G2 24/8/26		
3	Practical applications of fitting.	G3 10/8/26		
		G1 17/8/26		
		G2 24/8/26		
4	Introduction, function and types of marking and measuring tools and instruments (surface plate, try square, caliper, steel rule, scriber and Vernier caliper, Micrometer) (surface plate, try square, caliper, steel rule, scriber and Vernier caliper, Micrometer).	G3 14/8/26		
		G1 21/8/26		
		G2 28/8/26		
5	Identification of materials. (Iron, Copper, Stainless Steel, Aluminum etc.) and identification of various steel sections (flat, angle, channel, bar etc.).	G3 14/8/26		
		G1 21/8/26		
		G2 28/8/26		
6	Introduction to various types of threads (internal and external)	G3 31/8/26		
		G1 22/8/26		
		G2 29/8/26		
7	Description and demonstration of various types of tools in tapping & dieing process like drills, taps and dies.	G3 31/8/26		
		G1 22/8/26		
		G2 29/8/26		
8	Handling of measuring instruments. Use of dial gauges and feeler gauges, file and make angle, surfaces (Bevel gauge accuracy 1 degree) make simple open and sliding fits, inside square fit, make combined open and sliding fit, straight sides	G3 5/9/26		
		G1 7/9/26		
		G2 14/9/26		
9	Introduction to various types of threads (internal and external) - single start, multi- start, left-hand and right-hand threads.	G3 5/9/26		
		G1 7/9/26		
		G2 14/9/26		
10	Description and demonstration of various types of drills, taps and dies. Selection of dies for threading, selection of drills, taps and reamers for tapping	G3 21/9/26		
		G1 11/9/26		

	operations.	G2 48/9/26		
11	Precautions while drilling soft metals, e.g. copper, brass, aluminum etc.	G3 21/9/26 G1 11/9 G2 18/9		
12	To fit hacksaw blade in its frame and perform hacksawing operation by using marking tool and straight hacksawing practice on MS workpiece (50 x 50 x 6 mm). (at least three cuts of length 25mm)	G3 25/9, 26/9 G1 28/9, 3/10 G2 10/9, 5/10		
13	To perform filing on MS workpiece (50 x 50 x 6 mm) for giving it a perfect square shape within accuracy of ± 1 mm.	G3 12/10, 16/10 G1 3/10 G2 5/10, 19/10		
14	To perform drilling, reaming and tapping operation on Mild Steel Flat on Job-II.	G3 16/10 G1 10/10, 23/10 G2 9/10		
15	Make external thread on MS round and assemble it on Job-III.	G3 17/10 G1 23/10, 24/10 G2 9/10		
16	Radius form filing of different radius on any two corners of Job-II.	G3 17/10, 16/11 G1 24/10 G2 30/10, 23/11		
17	To make assembly of V shape fit within Bevel gauge accuracy $\pm 1^\circ$.	G3 13/11 G1 16/11, 20/11 G2 30/10, 3/11		
18	Making external thread on a pipe by using die and make a GI pipe connection using nipple and socket.	G3 13/11 G1 29/11, 2/11 G2 3/11, 10/11, 27/11, 28/11		

Workshop Instr.

Vishal Kumar

Foreman Instr.

Workshop Supdt

MOD
App. Sci. & Hum.

Government Polytechnic Ambota
LESSON PLAN

Name of Faculty	Amit Sharma	Academic Session	August – November 2026
Course Name	Engineering Graphics	Scheme	N-2026
Course Code	ES103	Semester	1st (C.S.E)
Course Type	Engineering Science (ES)	Semester Start Date	01-08-2026
L-T-P	0-0-6 (L:0, T:0, P:6)	Semester End Date	28-11-2026

STUDY AND EVALUATION SCHEME

Teaching Hours/Week		Internal Assessment		External Assessment				Total		Credit
Theory	Practical	Theory	Practical	Theory	Hrs.	Practical	Hrs.	Theory	Practical	
NA	06 Hrs.	NA	50	NA	NA	100	03 Hrs.	NA	150	03

COURSE OUTCOMES (COs)

On successful completion of this course, students will be able to:-

CO1	Identify and use standard drawing instruments accurately.
CO2	Draw geometrical figures and apply different types of lines.
CO3	Apply standard dimensioning techniques, drawing codes, conventions, and symbols as per IS SP-46 (2003) in engineering drawings.
CO4	Draw orthographic projections, sectional and isometric views of simple objects.
CO5	Interpret and draw the free hand sketches of Civil, Electrical and Mechanical engineering symbols and conventions.

Recommended Books

1	Engineering Drawing – P. S. Gill, S. K. Kataria & Sons, New Delhi
2	Elementary Engineering Drawing in First Angle Projection – N. D. Bhatt, Charotar Publishing House Pvt. Ltd., Anand
3	A Text Book of Engineering Drawing – Surjit Singh, Dhanpat Rai & Co., Delhi
4	Engineering Drawing – R. B. Gupta, Satya Prakashan, New Delhi
5	Engineering Graphics – Sharad K. Pradhan and K.K. Jain, Khanna Book Publishing Co., New Delhi
6	Engineering Drawing Practice for Schools and Colleges (SP 46:2003) – Bureau of Indian Standards, Government of India, New Delhi

Teaching Plan

Unit No.	No. of Sessions Planned	Topic / Sheet to be covered	Proposed date (as per timetable)	Actual Date	Remarks
1. Introduction to Engineering Drawing (2 Sheets)	1	Introduction to engineering drawing instruments and materials: standard drawing sheet layouts and sizes (ISO A-series); standard sizes of drawing boards	12/8/26		
	2	Convention of lines and their applications in Engineering Drawing as per BIS specifications	12/8/26		
	3	Practice of vertical, horizontal and inclined lines	12/8/26		
	4	Geometrical figures: triangles, rectangles, circles, ellipses and curves	12/8/26		
	5	Hexagon and pentagon construction with the help of drawing instruments (Sheet-1 completion)	12/8/26		
	6	Freehand lettering (5, 8 & 12 mm) and instrumental lettering of upper-case Gothic, single stroke, vertical (height 25–35 mm, ratio 7:4) (Sheet-2 completion)	19/8/26		
2. Dimensioning Techniques (1 Sheet)	7	Necessity and principles of dimensioning; elements of dimensioning; dimensioning methods and arrangement of dimensions as per BIS standards	19/8/26		
	8	Dimensioning of overall sizes, circles, chamfered surfaces, angles	19/8/26		

Unit No.	No. of Sessions Planned	Topic / Sheet to be covered	Proposed date (as per timetable)	Actual Date	Remarks
3. Scales (2 Sheets)	9	Dimensioning of tapered surfaces, holes equally spaced on P.C.D. (Sheet-3 completion)	26/8/26		
	10	Engineering scales - need and importance; types of scales	26/8/26		
	11	Definition of R.F. and length of scale	02/9/26		
	12	Concept, applications and construction of plain scales (practice) (Sheet-4 completion)	02/09/26		
		CLASS TEST-I	09/09/26		
	13	Concept and applications of diagonal scales	09/09/26		
	14	Construction of diagonal scales (practice)	09/09/26		
	15	Construction of diagonal scales (practice contd.) (Sheet-5 completion)	09/09/26		
4. Orthographic Projections (3 Sheets)	16	Theory of orthographic projections: concept and applications	16/9/26		
	17	Projection of points in different quadrants (theory & practice)	16/09/26		
	18	Projection of straight lines (1st and 3rd angle): line parallel or perpendicular to reference planes (theoretical concept only)	23/09/26		
	19	Three views of orthographic projection - introduction & method (1st angle)	23/09/26		
	20	Three views of orthographic projection - practice (1st angle) (Sheet-6 & 7)	30/09/26		
	21	Three views of orthographic projection in 3rd angle - method & practice	30/09/26		
	22	Three views of orthographic projection in 3rd angle - practice contd. (Sheet-8 completion)	07/10/26		
5. Sectioning (2 Sheets)	23	Sectioning: conventional representation of materials	07/10/26		
		CLASS TEST-II	14/10/26		
	24	Breaks for shafts, pipes, rectangular, square, angle, channel and rolled sections	14/10/26		
	25	Orthographic sectional views: Full sections - theory	14/10/26		
	26	Orthographic sectional views: Full sections - practice (Sheet-9 completion)	14/10/26		
	27	Orthographic sectional views: Half sections - theory & practice	21/10/26		
	28	Introduction to Partial/Broken-out sections	21/10/26		
	29	Introduction to Removed sections: practice (Sheet-10 completion)	21/10/26		
6. Isometric Views (1 Sheet)	30	Fundamentals of isometric projections (theory): Isometric scale (theory)	28/10/26		
	31	Isometric views of cylinder and cone	28/10/26		
	32	Isometric views of cube and prism	04/11/26		
	33	Isometric views of combinations of regular solids (practice)	04/11/26		
	34	Isometric views of combinations of regular solids (practice contd.) (Sheet -11 completion)	18/11/26		
7. Common Signs, Symbols & Conventions (1 Sheet)	35	Importance of engineering symbols, conventions and their applications	18/11/26		
	36	Freehand sketching of standard Civil engineering symbols and conventions	25/11/26		
	37	Freehand sketching of standard Electrical engineering symbols and conventions	25/11/26		

Lesson Plan/Lab Plan (Sports and Yoga)

Trade : CE		Session: Aug-Dec. 2026		
Sem: 1st				
Sr. No	Name of Practical	Proposed Date	Actual Date	Remarks
1. Physical fitness	Introduction :- This module emphasizes the development of physical fitness through activities such as warm-up.	10-Aug-26		
	Stretching, Flexibility, Endurance, strength exercises and cool-down.	17-Aug-26		
2. Yoga	Introduction:- The module on yoga may include loosening exercises	24-Aug-26		
	Surya Namaskar, Asanas(Standing, sitting, prone and supine)	24-Aug-26		
	Pranayama	7-Sep-26		
	Meditation	21-Sep-26		
	Relaxation techniques.	28-Sep-26		
3. Sports activities	Introduction:- Students may participate in games such as Volleyball	5-Oct-26		
	Basketball	12-Oct-26		
	Badminton	12-Oct-26		
	Table Tennis	19-Oct-26		
	Athletics	2-Nov-26		
	Kabaddi	16-Nov-26		
	Kho-Kho	23-Nov-26		
Sign. Of Teacher <i>Devinder Sharma</i>	Surya Namaskar, Asanas(Standing, sitting, prone and supine)	24-Aug-26		
	Pranayama	7-Sep-26		
	Meditation	21-Sep-26		
	Relaxation techniques	28-Sep-26		
	Introduction:- Students may participate in games such as volleyball	5-Oct-26		
			HOD <i>App. Sci. & Hum.</i>	

Lesson Plan/Lab Plan (Carpentry shop)

Trade : Comp. Engg.

Session: Aug.-Nov. 2026

Sem: 1st

Sr. No	Name of Practical	Proposed Date	Actual Date	Remarks
1	Safety precautions of concerned shop and use of personal protective equipment (PPE), demonstration of tools, equipment, sample jobs, Best practices in the concerned shop.	G-I 10-8-26		
		G-II 17-8-26		
		G-III 24-8-26		
2	Introduction and industrial applications of carpentry jobs. Name and use of raw materials used in carpentry shop: wood & alternative materials(Board , Plywood)	G-I 14-8-26		
		G-II 21-8-26		
		G-III 28-8-26		
3	Introduction to wood, timber and their identification, shapes and specifications, their properties, applications & defects. Study of the joints in roofs, doors, windows and furniture, seasoning of wood.	G-I 31-8-26		
		G-II 22-8-26		
		G-III 29-8-26		
4	Names, uses, and types of hand tools such as Saws, C-Clamp, Chisels, Mallets, Carpenter's vices, Marking gauges, Try-squares, Rulers and other commonly supporting tools, holding tools, measuring tools etc.	G-I 05-9-26		
		G-II 07-9-26		
		G-III 14-9-26		
5	Specification of iron jack plane used in carpentry shop. Job No. 1 Prepare a rectangular wooden block involving operations like Marking, sawing practices, planning to size, chiseling. (at least two cuts of 70mm)	G-I 21-9-26		
		G-II 11-9-26		
		G-III 18-9-26		
6	Practices of Basic Carpentry Work. Job No. 2 To prepare a Half Lap Joint (Cross, L or T- any one)	G-I 25-9-26		
		G-II 28-9-26		
		G-III 19-9-26		
7	Sawing practice using different types of saws. Job No. 3 To prepare a Mortise and Tenon Joint (T-Joint)	G-I 26-9-26		
		G-II 03-10-26		
		G-III 05-10-26		
8	Assembling jack plane- Planning practice including sharpening and blade adjustment of jack plane cutter. Job No. 4 To prepare a Dovetail Joint (Half Lap dovetail joint)	G-I 12-10-26		
		G-II 19-10-26		
		G-III 09-10-26		
9	Chiseling practice using different types of chisels including sharpening of chisel. Job No. 5 To prepare a mitre joint.	G-I 16-10-26		
		G-II 23-10-26		
		G-III 30-10-26		
10	Making of different types of wooden pin and fixing methods. Marking, measuring and inspection of jobs. Job No. 6 To prepare a lengthening Joint (scarf, dovetail scarf, tabled scarf - any one)	G-I 17/10, 13/11		
		G-II 24/10, 20/11		
		G-III 31/10, 21/11		

Lesson Plan/Lab Plan (Electrical Workshop)

Trade : <i>CSE</i>		Session: Aug-Dec. 2026		
Sem: 1st				
Sr. No	Name of Practical	Proposed Date	Actual Date	Remarks
1	Safety Precautions of concerned shop and use of personal protective equipment (PPE), demonstration of tools, equipment, sample jobs, best practices in the concerned shop.	G-II 10-8-26		
		G-III 17-8-26		
		G-I 24-8-26		
2	Demonstration and identification of common electrical materials with standard ratings and specifications such as wires, cables, switches, MCB & ELCB, fuses, cleats, clamps and allied items, tools and accessories.	G-II 14-8-26		
		G-III 21-8-26		
		G-I 28-8-26		
3	Identification of phase, Neutral and Earth wires for connection to domestic electrical appliances and their connections to three pin plugs. Difference between series and parallel wiring.	G-II 31-8-26		
		G-III 22-8-26		
		G-I 29-8-26		
4	Introduction to single phase and three phase supply and wiring system. Importance of three phase supply (RYB) and its sequence and wiring system. Estimating and costing of power consumption.	G-II 05-9-26		
		G-III 07-9-26		
		G-I 14-9-26		
5	Use of Multimeter, test lamp and line tester to check voltage, continuity, open/short and polarity in simple lamp and socket circuits. Read out current, voltage and electrical power at different loads using various measuring devices of different ranges.	G-II 21-9-26		
		G-III 11-9-26		
		G-I 18-9-26		
6	Connecting single phase energy meter with supply and load and work on power consumption and cost of energy.	G-II 25-9-26		
		G-III 28-9-26		
		G-I 19-9-26		
7	Measure total voltage and total capacity/current of batteries by connecting two or three batteries in series and parallel. Test the battery with hydrometer and cell tester.	G-II 26-9-26		
		G-III 03-10-26		
		G-I 05-10-26		
8	Assemble and internally wire a single-phase main DB with main switch/ MCB, bus-bars and at least five outgoing lighting/fan circuits with appropriate protection.	G-II 12-10-26		
		G-III 19-10-26		
		G-I 09-10-26		
9	Carrying out house wiring circuits using fuse, switches, sockets, ceiling rose etc. in batten or P.V.C. casing-capping. Demo of conduit wiring through junctions.	G-II 16-10-26		
		G-III 23-10-26		
		G-I 30-10-26		