

PROPOSED CURRICULAM AND SYLLABI OF
FULL-TIME DIPLOMA COURSES IN
INTERIOR DECORATION
(PART – II SEMESTER-4th)
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", 2nd Floor, 110 S. N. Banerjee Road, Kolkata – 7 00013

Course Structure of 4th Semester, Diploma in Interior Decoration

[As per guidelines of AICTE]

Sl. No	Type	Course Title	Course code	Credit	Periods/wk	Marks
1	Theory	Evolution of Interior Design – II	ID/4/T1/EVID-II	3	3	100
2	Theory	Materials & Construction – II	ID/4/T2/MC-II	3	3	100
3	Theory	Services-I	ID/4/T3/SV-I	4	4	100
4	Theory	Interior Landscape	ID/4/T4/ILD	3	3	100
5	Theory	Design & Drawing A (6 Hr. Exam)	ID/4/T5/DDA	-	-	100
6	Theory	Graphics (4 Hr. Exam)	ID/4/T6/GRA	-	-	100
Subtotal (Theory)				13	13	600
7	Sessional	Graphics – II	ID/4/S1/GR-II	3	4+1	75
8	Sessional	CAD Lab - II	ID/4/S2/CAD-II	3	3	50
9	Sessional	Interior Working Drawing - I	ID/4/S3/IWD-I	3	4+1	100
10	Sessional	Interior Design & Drawing – II	ID/4/S4/IDD-II	3	4+1	100
11	Sessional	Development of Life Skill-II	-	1	2	50
Subtotal (Sessional)				12	20	375
Total				25	33	975

EVOLUTION OF INTERIOR DESIGN – II

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 100	
ID/4/T1/EVID	4 th Semester	17 weeks	3 lectures	Int. Assess. 30	Examination 70

OBJECTIVE:

The course aims to inculcate an awareness and appreciation among the students about the history of art and architecture, its growth and development through the ages, with specific reference and focus on the interior spaces- for living, working, entertainment and worship particularly in the Indian context. The awareness of the influences of various styles will help in the innovation of new thoughts and ideas in the students.

MODULAR DIVISION

Group	Module	Topic	Contact Periods	Group	Module	Topic	Contact Periods
A	1	Pre-Historic and Riverine Civilizations	6	B	4	Islamic Style	12
	2	Buddhist Style	8		5	The British Raj	5
	3	Hindu and Jain Style	14		6	-	-
Contact Periods 45			Internal Assessment 6			Total Periods 51	

EVALUATION SCHEME

1. Examination (70 marks)

Group	Module	Objective Questions				Subjective Questions			
		To be Set	To be answered	Marks/question	Total Marks	To be set	To be answered	Marks / question	Total marks
A	1,2,3	15	Any Twenty	One	1x20= 20	5	Any five (at least One from each group)	10	10x5=50
B	4,5	10				3			

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	Architecture of Ancient India & Evolution of Indian styles	28 periods
Module 1	Pre-Historic and Riverine Civilizations	6 periods
<p>1.1 Indus River Valley Civilizations (3300 B.C. to 1300 B.C) : Overview - Harappa – Mohenjo-Daro 1.2 Rock Shelters of Bhimbetka</p>		
Module 2	Buddhist Style	8 periods
<p>2.1 Characteristic features: Viharas – Chaityas – Stupas 2.2 Study of the Sanchi Stupa (3rd cen. BC). 2.3 Rock cut caves of Ajanta and Ellora</p>		
Module 3	Hindu & Jain Style	14 periods
<p>3.1 The Evolution of the temple 3.2 Early Chalukyan Style: Ladhkan Temple, Aihole – Rock-cut temples at Badami 3.3 Orissan Style: Lingaraj Temple at Bhuvaneshwar – Sun Temple at Konarak 3.4 Khajuraho Style 3.5 Later Chalukyan or Hoysala Style 3.6 Dravidian Style: Pallava Style – Chola Style – Vijaynagar Style - Pandya Style or Madura Style 3.7 Jain Style: Chaumukh Temple of Adinath</p>		
GROUP B	Influence of Islamic and British Style on Indian Style	17 periods
Module 4	Islamic Style	12 periods
<p>4.1 Characteristic features 4.2 Qutub Minar, Delhi – Char Minar, Hyderabad, Gol Gumbaz, Bijapur 4.3 Babur and Humayun – Akbar the Great – Jehangir – Shah Jahan</p>		
Module 5	The British Raj	5 periods
<p>5.1 Characteristic features 5.2 The Emergence of the Indo Saracenic 5.3 Style of New Delhi</p>		

SUGGESTED READINGS

- Indian Architecture Vol. 1 (Buddhist & Hindu) / Percy Brown / D.B. Taraporevala Sons & Co. Pvt. Ltd.
- Indian Architecture Vol. 2 (Islamic Period) / Percy Brown / D.B. Taraporevala Sons & Co. Pvt. Ltd.
- Islamic Architecture in India / Satish Grover / Galgotia Publishing Company, New Delhi
- Buddhist and Hindu Architecture in India / Satish Grover / CBS
- A History of Architecture / Sir Banister Fletcher / Butterworth Heinemann (Hb), CBS (Pb)
- The Great Ages of World Architecture / G. H. Hiraskar / Dhanpat Rai Co. Pvt. Ltd., Delhi

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MATERIALS & CONSTRUCTION – II

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 100	
ID/4/T2/MC-II	4 th Semester	17 weeks	3 lectures	Int. Assess. 30	Examination 70

OBJECTIVE

The course aims to provide knowledge of basic structural components of an RCC framed structure, their properties and construction techniques, which enables students to prepare scaled drawings of the sectional details as a whole or part of the building depicting various necessary layers of materials, mix and dimensions.

MODULAR DIVISION

Group	Module	Topic	Periods	Group	Module	Topic	Periods
A	1	Ferrous & Non-Ferrous Metals	6	B	5	Stairs	5
	2	Plastics & Glass	6		6	Upper Floors	6
	3	Joinery & Building Hardware	6		7	Form Work	4
	4	Foundation & Plinth	6		8	Partition Walls, False Ceiling	6
Contact Periods-45			Internal Assessment 6			Total Periods 51	

EVALUATION SCHEME

1. Examination (70 marks)

Group	Module	Objective Questions				Subjective Questions			
		To be Set	To be answered	Marks/question	Total Marks	To be set	To be answered	Marks / question	Total marks
A	1-4	12	Any Twenty	One	1x20= 20	4	Any five (at least One from each group)	10	10x5=50
B	5-8	13				4			

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		24 periods
Module 1	Ferrous & Non-Ferrous Metals	6 periods
<p>General characteristics of metals: Ductility – Elasticity – Malleability– Toughness – Weldability. Ferrous Metals (IRON & STEEL): Definitions, comparison of average chemical composition with specific reference to carbon content and properties of pig iron, cast iron, wrought iron, mild steel (plain carbon steel), alloy steel (hard steel), HYSD and high tensile steel. Non-Ferrous Metals– Aluminium & Brass. Properties and different uses of Aluminium. Properties and mention of different uses of Brass.</p>		
Module 2	Plastics & Glass	6 periods
<p>Plastics: Properties, merits & demerits of Plastics- Various types of plastics: Thermosetting and Thermo-plastic – PVC, Nylon, Acrylic Polybutylenes , Epoxy, Polyvinylacetate, Polyurethanes , Polystyrene , Phenolic , Polypropylene - their applications as building materials- Uses of composites such as Polycarbonates, Glass-reinforced fibre, reinforced plastic-metal reinforced plastic Glass: Definition of glass – Principal constituents of glass : silica, sodium or potassium carbonate (or sulphate) , lime, lead, manganese dioxide, pigments, cullet- Classification of glass based on composition : Soda lime glass – Potash lime glass – Potash lead glass – Boro-silicate glass (Properties & Uses)- Classification of glass according to commercial forms : Sheet glass – Plate glass – Obscured glass – Wired glass – Structural glass – Laminate glass – Glass wool – Foam glass (Properties & Uses)- Process of manufacturing of Sheet Plate and Float glass- Post processing of glass such as Etching, Acid washing, Toughening , Straining, Bending, Edge Polishing , Film application (Sun control & Decorative)</p>		
Module 3	Joinery & Building Hardware	6 periods
<p>Introduction to concepts of joinery and joints; study of material specific limitations of joinery and study of structural joints focusing on load transfers based on use of different materials - types of joints such as lengthening, widening, bearing, framing in different materials such as wood, glass, metals Fixing and fastening for doors and windows: Nails – Screws – Hinges – Bolts- Rivets – Handles</p>		
Module 4	Foundation & Plinth	6 periods
<p>Foundation: Definition – Purpose – Classification of Shallow Foundation & Deep Foundation, Spread Footings: Wall Footings – Reinforced Concrete Footing – Inverted Arch Footing – Isolated Column Footing (Definition-uses): Definition of Plinth, Purpose of Plinth, Plinth filling</p>		
GROUP B		21 periods
Module 5	Stairs	5 periods
<p>Definition of Stairs-Ladders-Ramp- Technical terms used in stairs construction – Location of Stairs - Requirement of a good stair-Riser & Tread Relationship – Classification of stairs on the basis of their forms –Classification of stairs on the basis of materials- Wooden Stairs-Steel Stairs-RCC Stairs – Fixing Details: (i) Balusters (metal & wood) & (ii) Nosing to steps (iii) Handrails to post</p>		
Module 6	Upper Floors	6 periods
<p>Suspended floors in timber – single floor-R.C.C. Floors: Slab- (one-way, two-way & cantilever) – Beam & slab – Flat Slab – Ribbed floor-Pre-Cast Concrete Floor (Concept only)</p>		
Module 7	Form Work	4 periods
<p>Definition – materials used in formwork – requirements of good formwork -Rules to be followed in the removal of formwork at different locations- Formwork - Steel & Timber – Their comparison</p>		

Module 8 Partition Walls, False Ceiling**6 periods**

Partitions walls: Definition – Types – Uses – Details of construction

False ceiling: Definition – Types – Uses – Details of construction

SUGGESTED READINGS

- Building Construction Volume, I, II, III & IV (Metric Ed.) / J. K. McKay & W. B. McKay / Orient Longman
- The Construction of Buildings Volume 1, 2, 3, 4 & 5 / R. Barry / English Language Book Society
- A Text Book of Building Construction / S. P. Aurora & S. P. Bindra
- Building Construction/Sushil Kumar/Standard Book House

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SERVICES - I

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 100	
ID/4/T3/SV-I	4 th Semester	17 weeks	3 lectures	Int. Assess. 30	Examination 70

OBJECTIVE

The course aims to acquaint the students with the concept and principles of basic services. It also aims at developing their analytical skill in designing appropriate services layout to optimize use of resources like water, electricity etc.

MODULAR DIVISION

Group	Module	Topic	Contact Periods	Group	Module	Topic	Contact Periods
A	1	Water Supply	9	B	4	Ventilation	9
	2	Sanitation & Drainage	12		5	Lighting	9
	3	Materials, Fittings Appliances	6		-	-	-
Contact Periods 45			Internal Assessment 6		Total Periods 51		

EVALUATION SCHEME

1. Examination (70 marks)

Group	Module	Objective Questions				Subjective Questions			
		To be Set	To be answered	Marks/question	Total Marks	To be set	To be answered	Marks / question	Total marks
A	1,2,3	15	Any Twenty	One	1x20= 20	5	Any five (at least One from each group)	10	10x5=50
B	4,5	10				3			

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	27 periods
Module 1 Water Supply	9 periods

Water supply Sources & Requirements - Ground Water — Springs – Wells – Infiltration Wells & Galleries — Surface Water — Water Supply Requirements for buildings of different use group [per capita per day consumption value only] Portable Water - Water treatment - Stages [Definitions & Sequence only], System & Period of Water Supply: Direct & Indirect System— Constant, Continuous & Intermittent Supply- Design of Water Distribution Systems- General Requirements of Water Distribution System- Estimate of Demand Load: Occupant Load, Fire Protection - Basic Principles of Water Distribution within the premises— Water Main - Service Pipe: Ferrule, Goose-neck, Stop-cock box, Water-meter box – Communication Pipe – Consumer's Pipe Storage of Water & Down taker Distribution Pipes. Cold and Hot water distribution & mixing systems using loft tanks, pressure pumps, geysers, boilers, mixers, diverters, etc. Requirement for storage - Quantity to be stored - Materials used - Underground & Over-Head Reservoirs- Down takers (Cold Water Drops)

Module 2 Sanitation & Drainage

12 periods

Wash-Basins(flatback)-Cleaner’s Sink — Drinking Water Fountain — Water Closets (WC)- Squatting type (Indian style) & Sitting type (European style) — Urinals - Flushing Cisterns -Baths – Showers-Number of Sanitation- Equipment Requirements for buildings of different use groups: **Traps**- Water seal- Classification of Traps: Based on shape (P, Q, S); Based on use/ location (Floor trap, Gully trap, Intercepting trap, Grease trap, Silt trap) :**House Drainage Pipes**- Soil Pipe (SP) -Waste PIPE (WP)- Rain Water Pipe (RWP) - Ventilating Pipe (VP)- Drain Ventilating Pipe (DVP), Anti Siphonage Pipe (ASP) - Vent Pipe - Junction Pipe [Definitions only] :**Plumbing System**: Two Pipe System — One-Pipe System — Single Stack System — Partially Ventilated Single Stack System -Choice Of Plumbing System **Chambers**-Invert-Collection Chamber - Gully Chamber — Inspection Chamber-Manhole- Drop Manhole- Inceptor Manhole-Manhole Chamber [Definitions & sketches only] **Drainage System**- Sewage : soil waste, waste water (sullage), storm water (rain water) - Solid Refuse – Channel Drain -Drainage — Sewer- Systems Of Sewage Disposal: Dry or conservancy system (earth closets, trench latrines, bore-hole latrines, sanitary latrines)-Rain water pipes for roof drainage —Systems of drainage: Separate system, Combined system, Partially separate system – Disposal Of Sewage from Isolated Buildings : Septic Tank

Module 3 Materials, Fittings Appliances

6 periods

Pipe Materials: Supply Pipes-Soil Pipes: Cast Iron, Steel, Reinforced concrete, Prestressed concrete, Galvanized Mild Steel tubes, Copper, Brass, Wrought Iron, Asbestos Cement, Lead, Polythene, Unplasticized PVC - Salt Glazed Stoneware- Jointing Of Pipes: Different type of joints - Spigot & Socket Joints, Flanged Joints and Cement Mortar Joints —Lagging Of Pipes - Valves,Cocks,Taps,Fire hydrants& Other Fittings

GROUP B

18 periods

Module 4 Ventilation

9 periods

Climate & Weather-Basic Climatic Zones-Climatic Factors- Solar Radiation & Temperature, Clouds, Relative Humidity, Prevailing wind; measuring instruments and SI units— Aspects of Daylighting -Comfort: Desirable ConditionsRequirementof Ventilation–Heat Balanceof Body: Fanger’s comfort equation –Air Changeper Hour-Recommended Values of Air Changes for residential,commercial,business,Institutional spaces and garages. [values only]- Methods of Ventilation : **Natural Ventilation**- Ventilation Principles– Position of Openings– Size and Control of Openings: sashes, canopies, louvers —Wind Shadow-Humidity Control: wind scoop: **Mechanical Ventilation** : Fan: propeller & centrifugal -Installation of Fans: local & central — Systems of Ventilation- exhaust, plenum (positive ventilation) & combined -**Mechanical Cooling** : refrigerant, compressor, condenser, pressure release valve, evaporator — Refrigerator&Air Cooler-Tonof Refrigeration-**Simple Air-Conditioner**: propelling, filtering, washing, humidifying, cooling, dehumidifying, heating or re-heating.

Module 5 Lighting

9 periods

Principles of Lighting– Aims of Good Lighting– Planning the Brightness Pattern- considering the Visual Task, the background of the task (Central Field& Visual Field-Peripheral Field) – Glare-Recommended Valuesof Illumination Level for activity spaces. Daylighting- skylight, ERL-IRL, direct sunlight- Working plane-Daylight Factor-**Artificial Lighting**–Necessity-Selection of Light Source&Luminaires- Types of Luminaires-Incandescent & Fluorescent-(definitions, properties & suitability of uses) - Quality of light from sources-such as: Incandescent, Fluorescent, Vaporaria, Halides, Halogen, Gas- filled -neon, argon ,LED &Lasers- Types of lighting-General,Task and Accent– Modes of Lighting- Up Lighting, Down Lighting & Wall Washing (definitions, properties & suitability of uses)

SUGGESTED READINGS

- SP 7 (5): 2005 NATIONAL BUILDING CODE OF INDIA GROUP 5 – PART IX PLUMBING SERVICES / Bureau of Indian Standards
- A Text Book of Water Supply and Waste Engineering / TTTI-10
- Text Book of WATER SUPPLY AND SANITARY ENGINEERING / S.K. Hussain / Oxford & IBH Publishing Co. Pvt. Ltd.
- Solid Waste Management / Sasikumar & Gopi Krishna / PHI Learning Pvt. Ltd., New Delhi
- Hand Book of Water Supply & Drainage Engineering / S. K. Sharma / Dhanpat Rai & Co., New Delhi

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INTERIOR LANDSCAPE

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 100	
ID/4/T4/ILD	4 th Semester	17 weeks	3 lectures	Int. Assess. 30	Examination 70

OBJECTIVE

The subject aims at acquainting students to the basics of interior landscaping with the knowledge of plants, their selection, arrangement and maintenance required for creating a harmonious and aesthetically pleasing interior space. It also aspires in instilling the knowledge of interior landscape design from historical ages to contemporary trend.

MODULAR DIVISION

Group	Module	Topic	Periods	Group	Module	Topic	Periods
A	1	History of Interior Landscape	6	B	5	Purpose & Benefits of Interior Plantscape	2
	2	Elements of Landscape Design	3		6	Organizing space with plants	6
	3	Types of Landscaping	8		7	Special types	6
	4	Indoor Plants	6		8	Environment for house plants	8
Contact Periods 45			Internal Assessment 6		Total Periods 51		

EVALUATION SCHEME

1. Examination (70 marks)

Group	Module	Objective Questions				Subjective Questions			
		To be Set	To be answered	Marks/q uestion	Total Marks	To be set	To be answered	Marks / question	Total marks
A	1,2,3,4	12	Any Twenty	One	1x20= 20	4	Any five	10	10x5=50
B	5,6,7,8	13				4			

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		23 periods
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Module 1	History of Interior Landscape	6 periods
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The Chinese, The Egyptian and Babylonian, The Greeks - Origin of the true pot gardening, The Romans, Dark Ages, The Crusades, Renaissance Development, Eighteenth Century, America, Japanese Gardens, Mughal Gardens and Recent Developments

Module 2	Elements of Landscape Design	3 periods
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Colour, Form, Line of Sight, Scale or Balance, Texture

Module 3 Types of Landscaping 8 periods

Hardscapes-Rocks, Paths, Railing, Steps, Sculptures, Accessories, Furniture, Lighting and Plumbing Fixtures, Softscapes-Trees, Shrubs, Climbers, Grass, Water & Soil

Module 4 Indoor Plants 6 periods

Introduction to Different types of common Indoor Plants, Their Foliage Pattern- Spread, Shape, Texture, Colour, Flower, Height

GROUP B 22 periods

Module 5 Purpose & Benefits of Interior Plantscape 2 periods

Emotional and symbolic, Sensual, Architectural, Engineering, Aesthetic

Module 6 Organizing space with plants 6 periods

Grouping of plants, Contrasting shapes, Brightening small areas to large areas, Climbing and trailing plants, Decorative baskets
Residential Spaces-Outdoor Courtyards, Indoor Courtyards, Verandahs or Balconies, Roofs, Terraces, Incidental Spaces, Entryways

Module 7 Special types 6 periods

Terrariums, Hanging basket garden, Window garden, Bottle garden, Table garden, Dish or bowl garden, Vertical garden, Aero Garden

Module 8 Environment for house plants 8 periods

Lighting, Types of Grow Lights, Light Movers, Reflective Mylar, Containers, Temperature, Humidity and Maintenance

SUGGESTED READINGS

- Planting Design / Brain Hackett/
- Landscape Architecture/John Ormsbee Simonds McGraw-Hill
- Time Saver Standards for Interior Design and Space Planning/Joseph De Chiara, Julius Panero and Martin Zelink/Mcgraw-Hill (Tx)
- Interior Decoration/Satish Chandra Agarwal/Dhanpat Rai and Sons

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DESIGN & DRAWING A (6 Hr. Exam)

Subject Code	Course offered in	Full Marks 100	
ID/4/T1/DDA	4 th Semester	Int. Assess. 30	Examination 70

EVALUATION SCHEME

1. Examination (70 marks)

A six-hour examination is to be held during the Part – II Second Semester examinations on the syllabus of “Interior Design & Drawing - I”. Out of two questions set; any one (1) is to be answered. The two (2) internal assessments of 3 hours duration each are to be taken on the same syllabus. Question should be placed such that the planning area does not exceed 30 (twenty) sqm.

2. Internal Assessment (30 marks)

- a. Mid Semester: 20 marks
- b. Teacher’s assessment: 10 marks (Attendance in the sessional class-Interior Design & Drawing- II and seminar / homework / class performance etc.)

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GRAPHICS (4 Hr. Exam)

Subject Code	Course offered in	Full Marks 100	
ID/4/T6/GRA	4 th Semester	Int. Assess. 30	Examination 70

EVALUATION SCHEME

1. Examination (70 marks)

A four-hour examination is to be held during the Part – II Second Semester examinations on the syllabus of “Graphics-I & Graphics-II”. Out of 2(two) questions set; any 1 (one) is to be answered. The two internal assessments of 2 hours duration each, are to be taken on the same syllabus.

2. Internal Assessment (30 marks)

- a. Mid Semester: 20 marks
- b. Teacher’s assessment: 10 marks (Attendance in the sessional class of Graphics-II and seminar / homework / class performance etc.)

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GRAPHICS - II

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 75	
ID/4/S1/GR-II	4 th Semester	17 weeks	4Practical +1 tutorial	Int. Assess. 50	Ext. Assess. 25

OBJECTIVE

This subject aims that the students learn the graphical technique of sciography to visualize the shadow pattern in exterior and interior space. It also intends that the students understand interior lighting design with the concept of shadow and shade.

MODULAR DIVISION

Group	Module	Topic*	Contact Periods#	No. of Sheets
A	1	Sciography : Definition - Techniques of drawing shadow and shades on orthographic projection of Lamina, Right regular Solids taking sun as light source	10	2
	2	Orthographic projections of Buildings with Sciography	10	1
B	3	Drawing shadows of any two furniture on the floor taking point light source	10	1
	4	Drawing shadows of furniture on the floor in one-point perspective projection of residential interior space	15	2
C	5	Drawing shadows of furniture on the floor and the wall in one-point perspective projection of business or commercial interior space	15	2

*Assignments are to be carried out in a journal-form on large size square grid pad and/or drawn to scale on A2 size drawing sheet as per instructions.

#The periods exclude tutorials

EVALUATION SCHEME

Name of the course	Marks Allotted
Graphics - II	<p>a. Continuous internal assessment of 50 marks is to be carried out by the teachers throughout the semester</p> <p>b. External assessment of 25 marks shall be held at the end of the Semester on the entire syllabus</p>

SUGGESTED READINGS

- Geometrical Drawing for Students / L. H. Morris /Longman, Green&Co.
- Manual of Rendering with Pen and Ink / Robert W. Gill / Thames and Hudson
- Art of Perspective Drawing / Simon Graco /Walter Brooks
- Engineering Drawing /N.D.Bhat/Charotar Publishing House Pvt. Ltd

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CAD LAB – II

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 50	
ID/4/S2/CAD - II	4 th Semester	17 weeks	3Practical	Int. Assess. 30	Ext. Assess. 20

OBJECTIVE

The course aims to inculcate the knowledge of basic commands along with tools necessary for professional 2D drawing, design and drafting using AutoCAD software. It also aims at enabling the students in competency of plotting their drawings in printed form.

MODULAR DIVISION

Module	Topic	Contact Periods		Module	Topic	Contact Periods	
		Lecture	Sessional			Lecture	Sessional
1	Viewport & Model Setting	2	6	5	Solid Editing	2	5
2	Drawing 3D surfaces	1	6	6	User co-ordinate system	1	4
3	3D views	1	6	7	Object linking & embedding	2	3
4	Solid Modeling	1	6	8	Rendering	1	4

EVALUATION SCHEME

Name of the course	Marks Allotted
CAD Lab - I	<p>a. Continuous internal assessment of 30 marks is to be carried out by the teachers throughout the semester</p> <p>b. External assessment of 20 marks shall be held at the end of the Semester on the entire syllabus</p>

DETAIL COURSE CONTENT

Module 1 Viewport & Model Setting 3Lecture and 6 Sessional periods

Model Space Viewports – Displaying viewports as tiled areas: VPORTS command – Making a viewport current – Joining two adjacent viewports – Model space: MSPACE command – Paper space: PSPACE command – Editing the viewports: Controlling the display of the objects in the viewport, Locking the display in the viewports, Controlling the display of the hidden lines in the viewports, Clipping the existing viewports – PAGESETUP command – MVSETUP command

Module 2 Drawing 3D surfaces 2 Lecture and 10 Sessional periods

RULESURF command – TABSURF command – REVSURF command – EDGESURF command – 3DMESH command – 3DFACE command – 3DPOLY command – 3DARRAY command – MIRROR3D command – ROTATE3D command – ALIGN command – HIDE command

Module 3 3D views 1 Lecture and 3 Sessional periods

VPOINT command – Plan View – Top – Bottom – Left – Right – Front – Back – 3D Orbit

Module 4 Solid Modeling**1 Lecture and 2 Sessional periods**

About solid modeling – Predefined solid primitives – Creating solid objects: BOX, CONE, CYLINDER, SPHERE, TORUS, WEDGE commands – Constructing a Region: Creating a 2D Region: REGION command – Subtracting Regions: SUBTRACT command – Creating an extruded solid: EXTRUDE command

Module 5 Solid Editing**1 Lecture and 2 Sessional periods**

Constructing a composite solid: UNION, SUBTRACT, INTERSECT, REVOLVE, FILLET, CHAMFER commands – Slicing solids: SLICE, SECTION commands

Module 6 User co-ordinate system**3 Lecture and 2 Sessional periods**

World Co-ordinate System (WCS) – User Co-ordinate System (UCS) – UCSICON command – UCS command

Module 7 Object linking & embedding**1 Lecture and 2 Sessional periods**

OLE feature – Clipboard – Object Embedding: COPYCLIP command – Linking objects: COPYLINK command

Module 8 Rendering**1 Lecture and 2 Sessional periods**

Rendering – Loading and unloading AutoCAD Render – Elementary Rendering – Selecting different properties for rendering: Rendering type, Rendering option, Rendering procedures, Destination, Sub sampling, Background, Fog / Depth cue – Inserting and modifying lights – Defining and rendering a scene – Attaching and detaching materials – Saving a Rendering

SUGGESTED READINGS

- Inside AutoCAD/ H.Rice, Daniel Racker/New Riders Publishing
- Mastering AutoCAD and AutoCAD LT/George Omura Brian C.Benton/Wiley
- Advanced Techniques in AutoCAD/Robert Thomas/Wiley, John& Sons Incorporated

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INTERIOR WORKING DRAWING – I

Subject Code	Course offered in	Duration	Periods/Week	Full Marks 100	
ID/4/S3/IWD-I	4 th Semester	17 weeks	4Practical & 1 tutorial	Int. Assess. 50	Ext. Assess. 50

OBJECTIVE

The subject intends to equip the students with knowledge and skills of using construction techniques for preparing working drawing and details of designed drawing. It further intends to equip student with thorough knowledge specifically about the finishes of floor, walls & ceiling and details of joinery designed furniture in residential interior spaces.

MODULAR DIVISION

Module	Topic*	Contact Periods#	No. of sheets
1	Floor Plans	15	2
2	Elevations & Sections	20	4
3	Structural and finishing details	10	2
4	Detailing and Scheduling	10	2
5	Furniture and Fixture	10	2

*Assignments are to be carried out in a journal-form on large size square grid pad and/or drawn to scale on A2 size drawing sheet as per instructions.

#The periods exclude tutorials

EVALUATION SCHEME

Name of the course	Marks Allotted
Interior Working Drawing - I	a. Continuous internal assessment of 50 marks is to be carried out by the teachers throughout the semester b. External assessment of 50 marks shall be held at the end of the Semester on the entire syllabus

DETAIL COURSE CONTENT

Module 1 Floor Plans 12 periods

All floor plans showing flooring design/pattern with furniture foot print along with colour schedule/scheme in 1:25 scale

Module 2 Elevations & Sections 20 periods

All elevations and sections showing finishes of walls, flooring, ceiling, furniture and partitions/Non-structural installations constructed & assembled onsite with colour schedule in appropriate scale.

Module 3 Structural and finishing details 10 periods

Structural and finishing details of Lintels, Arches, Jambs, Frames & Casings, Steps, Stairs, Ladders, Railings etc.

Module 4 Detailing and Scheduling 10 periods

Detailing and scheduling of Doors and Windows

Module 5 Furniture and Fixture

10 periods

Details of Furniture and fixture showing joinery and hardware

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Module 4	Interior Finish Plans	15 periods
Indicate wall and floor patterns and color placement, material transitions and extents of interior finishes.		
Module 5	Interior Elevations, Sections and Details	15 periods
Indicate material, color and finish placement.		
Module 6	Reflected Ceiling Plan	12 periods
Showing positions of luminaries and fans/ACduct-outlet		

SUGGESTED READINGS

- The Interior Design Reference & Specification Book/Linda O’Shea, Chris Grimley, Mimi Love
- Interior Design Course: Principles, Practices and Techniques for Aspiring Designer/TomrisTangaz/Barron’s
- Neufert Architect’s Data/EmstNeufert/Wiley-Blackwell
- National Building Code
- Time Saver Standards for Interior Design and Space Planning/Joseph De Chiara, Julius Panero and Martin Zelink/Mcgraw-Hill (Tx)
- Time Saver Standards for Building Types/Joseph De Chiara, and John Hancock Callender/Mcgraw-Hill Subsequent Edition
- Interior Decoration/Satish Chandra Agarwal/Dhanpat Rai and Sons

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**PROPOSED CURRICULUM AND SYLLABI OF
FULL-TIME DIPLOMA COURSES IN
INTERIOR DECORATION
(PART – I &PART-II)
W.E.F.2019-20**

WEST BENGAL STATE COUNCIL OF TECHNICAL EDUCATION

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