

GOVERNMENT POLYTECHNIC NASHIK

(AN ACADEMICALLY AUTONOMOUS INSTITUTE OF GOVT. OF MAHARASHTRA)



CURRICULUM - 2016

DIPLOMA PROGRAMME
IN
INTERIOR DESIGN AND DECORATION

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PREFACE

Government Polytechnic, Nashik is established in 1980. The institute has been conferred an academically autonomous status in 1995 by Government of Maharashtra because of excellent performance.

The vision of the institute is to be a premier technical training and development institute catering to the skill and professional development in multi-domain for successful employment / self-employment by offering certified and accredited NSQF compliant programmes. The institute shall be the center for excellence in skill development and community development through different training programmes, business incubation and entrepreneurship development. For this the institute is committed to provide education for skill development, engineering diploma and continuing education programmes for enhancement of employability skills of the aspirants in the job/self-employment through continually developing quality learning systems. The institute aims at holistic and student centric education in collaboration with business, industry and having practice based education. To achieve this continuous efforts are made to design the curriculum considering the latest development in the industrial sector and technology.

The Two year Diploma Programme in Interior Design and Decoration is being offered since 2008 under MSBTE. After academic autonomy, first curriculum was implemented in 2008 and subsequently it was revised and implemented in 2011. The curriculum revision is a regular activity and outcome based education approach is adopted for designing the curriculum. The revised outcome based curriculum is designated as "Curriculum 2016". The implementation of Curriculum 2016 will be effective from the academic year 2016- 17.

For designing the curriculum, the various domains have been identified. For Interior Design and Decoration Programme these domains are Architecture, Interior, Landscape Design, Furniture Design and Freelancing work. The questionnaire has been designed to get the responses from these domain areas from different stake holders i.e. industries, teachers and students. The feedback from different stake holders has been analysed and roles, functions, activities, tasks and attitudes necessary for Diploma Interior Design and Decoration Engineer have been identified. The programme structure is finalised and the content detailing of individual course has been carried out by group of experts, and approved by Programme Wise Committee (PWC), Board of Studies (BOS) and Governing Body (GB).

In this Curriculum-2016, the student has to acquire 135 credits for successful completion of Diploma Programme. The courses of curriculum are structured at different 5 levels i.e. Foundation Courses, Basic Technology Courses, Allied Courses, Applied Technology Courses and Diversified Courses.

The minimum entry level is 10th. However, the curriculum provides "Multi Point Entry and Credit system (MPEC)" for the students opting admission after passing 12th, ITI, MCVC.

There is flexibility for opting the courses as per the choice of students. The curriculum provides "Sample Path" as a guide line for selection of courses in each term for entry level as 10th. The List of Courses for Award of Class after completion of Diploma Programme is prescribed separately in this curriculum.

The fulfilment of programme outcome as stated in the Curriculum-2016 will depend on its effective implementation. The teachers who are implementing the curriculum were also involved in the design process of curriculum, hence, I hope that the Curriculum-2016 will be implemented in effective way and the pass outs will acquire the requisite knowledge and skills to satisfy the industrial needs.

(Prof. DNYANDEO PUNDALIKRAO NATHE)
Principal
Government Polytechnic, Nashik

GOVERNMENT POLYTECHNIC NASHIK

VISION

To be a premier technical training and development institute catering to the skill and professional development in multi-domain for successful employment/self-employment by offering certified and accredited NSQF compliant programmes. The institute shall be the center for excellence in skill development and community development through different training programmes, business incubation and entrepreneurship development.

MISSION

The Government Polytechnic Nashik, an autonomous institute of Government of Maharashtra has the mission to provide education for skill development, engineering diploma and continuing education programmes for enhancement of employability skills of the aspirants in the job/self-employment through continually developing quality learning systems. The institute aims at holistic and student centric education in collaboration with business, industry and having practice based education.

INTERIOR DESIGN AND DECORATION DEPARTMENT

VISION

- To provide professional and competent Interior Designers to cater the socio-economic needs as per the latest trends and work environment.
- To develop interior designers & decorators to work in various interior & architectural firms.
- To provide technical education training & guidance that lead to personality development, meaningful employment & entrepreneurship.
- To develop interior designers which will ensure client satisfaction cater needs of industry & community.
- To give the knowledge on various current issues and emerging trends in interior design and decoration.

MISSION

Department of interior design and decoration is committed:

- M1. To offer diploma programme in Interior Design and Decoration those cater to changing needs of industry, business and community.
- M2. To provide ready professionals for the real world through strengthening the knowledge and provide employability skills.
- M3. To provide creative, innovative, user friendly, aesthetical interior designs to satisfy the needs of the society.
- M4. To update in professions to face the future challenges of market by providing field practical experience and provide a dynamic learning environment.

JOB PROFILE OF INTERIOR DESIGNER

A Diploma pass out in Interior Design and Decoration has to carry out various activities in various areas during his implementation of engineering knowledge.

Interior Designer job opportunities are available in following domains:

- a. Architectural Design
- b. Interior Design (Residential & Commercial)
- c. Landscape Design
- d. Furniture Design
- e. Freelancing work

In above domain areas Diploma Interior Designer has to perform following duties.

1. Manually and computer drafting
2. Interior site supervising
3. Residential designing
4. Commercial designing
5. Landscape designing
6. Furniture Designing
7. Writing technical reports
8. Management of office work
9. Material planning
10. Execution of interior Works
11. Quality control of interior Works
12. Interior services.

DIPLOMA PROGRAMME IN INTERIOR DESIGN AND DECORATION

RATIONALE

This programme is concerned with the planning, design and organisation of interior architectural space. It offers diploma technician, the opportunity to explore the interaction between users and their physical environments by considering social and cultural values, norms, tastes and expectations. In addition, it provides them with a wide range of technical skills in construction technology and materials, environmental engineering, structural design, 3D design and virtual design, including teamwork and communication skills. It involves the rehabilitation and refurbishment of existing buildings, and the creation of new spaces.

It provides knowledge and understanding of the interior design process from inception to completion. This includes planning and scheduling of design tasks, production of construction documents and specifications. At the core of the required course work are design studios, where students gain practical experience of programming and designing interior spaces. Support courses to complement and enhance the core elements include technology and structures, furniture, materials and finishes, colours, lighting, HVAC systems, plumbing, acoustics, and CAD.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- I. To develop the ability to solve and present problems clearly, creatively and quickly.
- II. Become entrepreneur and work freelance (self-employment), by offering consultancy services directly to individual clients.
- III. Demonstrate critical reasoning and requisite quantitative skills to identify and resolve design problems, and to create designs that reflect economic, environmental and social sensitivities.
- IV. Exhibit a commitment to lifelong learning and professional development, involvement in professional activity and public service.

PROGRAMME OUTCOMES (POs)

On successful completion of Diploma Programme In Interior Design and Decoration, the passouts will be able to,

- a. **Basic knowledge:** Read and interpret building plans, understand concept and principles of interior design drawings.
- b. **Discipline knowledge:** Think critically about a design problem and identify to make use of appropriate materials and equipment's.
- c. **Experiments and practice:** Plan and organize interior construction activities, working drawings, estimates and all interior services.
- d. **Engineering Tools:** Demonstrate drawings manually and use of Computer aided software efficiently.
- e. **The engineer and society:** Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to interior design and decoration practices.

- f. **Environment and sustainability:** Understand the impact of the interior designing solutions in societal and environmental contexts and Use of eco-friendly materials and user friendly designs.
- g. **Ethics:** Use of standard professional ethics, responsibilities and norms of the interior designing practices.
- h. **Individual and team work:** Work as a team member and leader for given task and social activity.
- i. **Communication:** Develop communication ability, Presentation skills and observation skills.
- j. **Project Management and Finance:** Develop project management skills and quality control techniques in interior design and decoration.
- k. **Life-long learning:** Recognize the need of the present society and adopt life-long learning as per the latest trends and work environment.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

On successful completion of Diploma Programme in Interior Design and Decoration, the student will be able to,

- PSO 1.** Design interior environment that support indoor environmental quality and improve the quality of life for occupants.
- PSO 2.** Practice in all the interior disciplines.
- PSO 3.** Create, utilize and present interior designs, construction and related documents.

MAPPING OF MISSION AND PROGRAMME EDUCATIONAL OBJECTIVES

Sr. No.	Mission	Component of Mission Statement	PEO/s
1	M1	To offer diploma Programme in Interior Design and Decoration those cater to changing needs of industry, business and community.	I
2	M2	To provide ready professionals for the real world through strengthening the knowledge and provide employability skills.	II
3	M3	To provide creative, innovative, user friendly, aesthetical interior designs to satisfy the needs of the society	III
4	M4	To update in professions to face the future challenges of market by providing field practical experience and provide a dynamic learning environment.	IV

MAPPING OF PROGRAMME EDUCATIONAL OBJECTIVES AND PROGRAMME OUTCOMES

Sr. No.	Programme Educational Objectives (PEOs)	Programme Outcomes (POs)
1	To develop the ability to solve and present problems clearly, creatively and quickly.	a, b, c, e, f, g, h, i, k
2	Demonstrate critical reasoning and requisite quantitative skills to identify and resolve design problems, and to create designs that reflect economic, environmental and social sensitivities.	a, b, c, d, e, f, i, k
3	Become entrepreneur and work freelance (self-employment), by offering consultancy services directly to individual clients.	b, c, d, e, f, g, h, i, j, k
4	Exhibit a commitment to lifelong learning and professional development, involvement in professional activity and public service	e, f, g, h, i, j, k

MAPPING OF PROGRAMME SPECIFIC OUTCOMES AND PROGRAMME OUTCOMES

Sr. No.	Programme Specific Outcomes (PSOs)	Programme Outcomes (POs)
1	The interior designing diploma students will be able to design interior environment that support indoor environmental quality and improve the quality of life for occupants.	a, b, c, e, f, k.
2	The interior designing diploma students will be able to practice in all the interior disciplines.	a, b, c, d, e, f, g, h, I, j, k.
3	The interior designing diploma students will be able to create, utilize and present interior designs, construction and related documents.	a, b, c, d, e, f, g, h, I, j, k.

MAPPING OF PROGRAMME OUTCOME AND COURSES

Sr. No.	Programme Outcome (POs)	Courses
a	Basic knowledge: Read and interpret building plans, understand concept and principles of interior design drawings.	Sketching and Rendering Paraline Projections Basic Design Basic construction Interior Design
b	Discipline knowledge: Think critically about a design problem and identify to make use of appropriate materials and equipment's.	Basic Materials and Products Allied Materials and Products Basic Construction Interior Construction Techniques Interior Working Drawing Interior Design Advanced Interior Design Specialty Interior Design Landscape Design Set design
c	Experiments and practice: Plan and organize interior construction activities, working drawings, estimates and all interior services.	Interior Construction Techniques Estimating and Management Interior Working Drawing Primary Services Secondary Services Interior Design Advanced Interior Design Specialty Interior Design
d	Engineering Tools: Demonstrate drawings manually and use of Computer aided software efficiently.	Sketching and Rendering Para line projections Perspective Projections Basic Construction Interior Working Drawing Interior Construction Techniques 2D and 3D CADD Graphic Design
e	The engineer and society: Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to interior design and decoration practices.	Development of Life Skills Basic Design Interior Design Advanced Interior Design Specialty Interior Design Primary Services Secondary Services
f	Environment and sustainability: Understand the impact of the interior designing solutions in societal and environmental contexts and use of eco-friendly materials and user friendly designs.	Environmental Studies Basic Materials and Products Allied Materials and Products Primary Services Secondary Services Interior Working Drawing

Sr. No.	Programme Outcome (POs)	Courses
g	Ethics: Use of standard professional ethics, responsibilities and norms of the interior designing practices.	Development of Life Skills Professional Practice Environment Studies Estimating and Management Project Seminar
h	Individual and team work: Work as a team member and leader for given task and social activity.	Development of Life Skills Communication Skills Professional Practice Entrepreneurship Development Estimating and Management Project Seminar Interior Design Advanced Interior Design Specialty Interior Design
i	Communication: Develop communication ability, Presentation skills and observation skills.	Communication Skills Development of Life Skills Entrepreneurship Development Sketching and Rendering Para line projections Perspective Projections Basic Design Interior Design Advanced Interior Design Specialty Interior Design Landscape Design Set design Interior Construction Techniques Interior Working Drawing Graphic Design 2D and 3D CADD 3D MAX Project Seminar Professional Practice
j	Project Management and Finance: Develop project management skills and quality control techniques in interior design and decoration.	Development of Life Skills Basic Materials and Products Allied Materials and Products Primary Services Secondary Services Project Seminar Professional Practice Communication Skills Estimating and Management

Sr. No.	Programme Outcome (POs)	Courses
k	<p>Life-long learning: Recognize the need of the present society and adopt life-long learning as per the latest trends and work environment.</p>	<p>Communication Skills Development of Life Skills Estimating and Management Project Basic Materials and Products Allied Materials and Products Professional Practice Primary Services Secondary Services Interior Working Drawing Interior Construction Techniques Basic Design Interior Design Advanced Interior Design Specialty Interior Design Landscape Design Set design 2D and 3D CADD 3D MAX</p>

**PROGRAMME- DIPLOMA IN INTERIOR DESIGN AND DECORATION
CURRICULUM STRUCTURE**

SCHEME AT A GLANCE

Level	Name of Level	Total Number of Courses offered	Number of Courses to be completed	TH	TU	PR	Total Credits	Marks
Level-1	Foundation Courses	06	06 Compulsory	13	01	18	32	600
Level-2	Basic Technology Courses	05	05 Compulsory	11	01	18	30	550
Level-3	Allied courses	05	05 Compulsory	12	--	06	18	450
Level-4	Applied Technology Courses	06	06 Compulsory	04	--	27	31	550
Level-5	Diversified Courses	05	03 (02 Compulsory +01 Elective)	05	--	19	24	450
TOTAL		27	24 Compulsory +01 Elective -- 25	45	02	88	135	2600

Abbreviations:

TH: Theory, TU: Tutorial, PR: Practical.

PROGRAMME- DIPLOMA IN INTERIOR DESIGN AND DECORATION
PROGRAMME STRUCTURE
LEVEL – 1
FOUNDATION COURSES

Sr. No	Course Code	Course Title	Course Abbr	TEACHING SCHEME				EXAMINATION SCHEME						
				TH	TU	PR	Total Credits	Theory Paper		Test	PR	OR	TW	Total
								Hrs	Marks					
01	6101	Communication Skills	CMS	03	--	02	05	03	80	20	--		50	150
02	6102	Development of Life Skills	DLS	01	--	02	03	--	--	--	--	--	50	50
03	6123	Sketching and Rendering	SKR	--	--	02	02	--	--	--	--	--	50	50
04	6124	Basic Design	BSD	04	--	06	10	03	80	20	--	--	50	150
05	6125	Basic Materials and Products.	BMP	04	--	--	04	03	80	20	--	--	--	100
06	6126	Paraline Projection	PPP	01	01	06	08	--	--	--	--	--	100	100
TOTAL			--	13	01	18	32	--	240	60	--	--	300	600

Level: 1

Total Courses : 06
 Total Credits : 32
 Total Marks : 600

Abbreviations:

Abbr : Course Abbreviation, TH: Theory, TU: Tutorial, PR: Practical, OR: Oral, TW: Term Work

Course code Indication :

Example : 6101
 First digit : 6 : Indicates last digit of Year of Implementation of Curriculum
 Second digit : 1 : Indicates Level.
 Third & Fourth digit : 01 : Indicates Course Number.

Assessment of PR / OR / TW:

- 1) All orals and practical's are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiner only.

PROGRAMME- DIPLOMA IN INTERIOR DESIGN AND DECORATION
PROGRAMME STRUCTURE
LEVEL – 2
BASIC TECHNOLOGY COURSES

Sr. No.	Course Code	Course Title	Course Abbr	TEACHING SCHEME				EXAMINATION SCHEME						
				TH	TU	PR	Total Credits	Theory Paper		Test	PR	OR	TW	Total
								Hrs	Mark					
01	6266	Primary Services	PRS	04	--	--	04	03	80	20	--	--	--	100
02	6267	Perspective Projections	PPJ	01	01	04	06	--	--	--	25	--	25	50
03	6268	2D and 3D CADD	CDD	01	--	04	05	--	--	--	50	--	50	100
04	6269	Interior Design	IND	02	--	06	08	06	80	20	--	25	25	150
05	6270	Basic Construction Techniques	BCT	03	--	04	07	03	80	20	--	--	50	150
TOTAL			--	11	01	18	30	--	240	60	75	25	150	550

Level: 2

Total Courses : 05
Total Credits : 30
Total Marks : 550

Assessment of PR / OR / TW:

- 1) All orals & practical are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiners.

PROGRAMME- DIPLOMA IN INTERIOR DESIGN AND DECORATION
PROGRAMME STRUCTURE
LEVEL – 3
ALLIED COURSES

Sr. No	Course Code	Course Title	Course Abbr	TEACHING SCHEME				EXAMINATION SCHEME						
				TH	TU	PR	Total Credits	Theory Paper		Test	PR	OR	TW	Total
								Hrs	Mark					
01	6302	Environmental Studies	EVS	--	--	02	02	--	--	--	--	--	50	50
02	6309	Entrepreneurship Development	EDP	01	--	02	03	--	--	--	--	--	50	50
03	6319	Secondary services	SES	04	--	--	04	03	80	20	--	--	--	100
04	6320	Allied Materials and Products	ANP	04	--	--	04	03	80	20	--	--	--	100
05	6321	Estimating and management	ETM	03	--	02	05	04	80	20	--	25	25	150
TOTAL			--	12	--	06	18	--	240	60	--	25	125	450

Level: 3

Total Courses : 05
Total Credits : 18
Total Marks : 450

Assessment of PR / OR / TW:

- 1) All orals and practical are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiners.

PROGRAMME- DIPLOMA IN INTERIOR DESIGN AND DECORATION
PROGRAMME STRUCTURE
LEVEL – 4
APPLIED TECHNOLOGY COURSES

Sr. No.	Course Code	Course Title	Course Abbr	TEACHING SCHEME				EXAMINATION SCHEME						
				TH	TU	PR	Total Credits	Theory Paper		Test	PR	OR	TW	Total
								Hrs	Marks					
01	6410	Professional Practices	PPR	--	--	04	04	--	--	--	--	--	50	50
02	6411	Seminar	SEM	--	--	02	02	--	--	--	--	--	50	50
03	6412	Project	PRO	--	--	04	04	--	--	--	--	50	50*	100
04	6463	Interior Construction Techniques.	ICT	01	--	06	07	03	80	20	--	--	50	150
05	6464	Interior Working Drawing	IWD	02	--	08	10	03	80	20	--	--	50	150
06	6465	3D Max	MAX	01	--	03	04	--	--	--	--	--	50	50
TOTAL			--	04	--	27	31	--	160	40	--	50	300	550

Level: 4

Total Courses : 06
Total Credits : 31
Total Marks : 550

Assessment of PR / OR / TW:

- 1) All orals & practical are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiners.

PROGRAMME- DIPLOMA IN INTERIOR DESIGN AND DECORATION
PROGRAMME STRUCTURE
LEVEL – 5
DIVERSIFIED COURSES

Sr. No	Course Code	Course Title	Course Abbr	TEACHING SCHEME				EXAMINATION SCHEME						
				TH	TU	PR	Total Credits	Theory Paper		Test	PR	OR	TW	Total
								Hrs	Mark					
01	6579	Advance Interior Design	AID	02	--	07	09	08	160	40	--	25	25	250
02	6580	Specialty Interior Design	SID	02	--	08	10	--	--	--	50	--	50	100
Elective I : Any ONE of the following														
03	6581	Landscape Design	LDG	01	--	04	05	--	--	--	--	50	50	100
	6582	Set Design	SDG	01	--	04	05	--	--	--	--	50	50	100
	6583	Graphic Design	GDG	01	--	04	05	--	--	--	--	50	50	100
TOTAL			--	05	--	19	24	--	160	40	50	75	125	450

Level: 5

Total Courses : 03
Total Credits : 24
Total Marks : 450

Assessment of PR / OR / TW:

- 1) All orals & practical are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiners.

PROGRAMME: DIPLOMA IN INTERIOR DESIGN AND DECORATION
Courses for Award of Class

Sr. No.	Course Code	Course Title	Course Abbr	TEACHING SCHEME				EXAMINATION SCHEME						
				TH	TU	PR	Total Credits	Theory Paper		Test	PR	OR	TW	Total
								Hrs	Marks					
01	6319	Secondary Services	SES	04	--	--	04	03	80	20	--	--	--	100
02	6320	Allied Materials and Products	ANP	04	--	--	04	03	80	20	--	--	--	100
03	6321	Estimating and Management	ETM	03	--	02	05	04	80	20	--	25	25	150
04	6411	Seminar	SEM	--	--	02	02	--	--	--	--	--	50	50
05	6412	Project	PRO	--	--	04	04	--	--	--	--	50	50*	100
06	6463	Interior Construction Techniques	ICT	01	--	06	07	03	80	20	--	--	50	150
07	6464	Interior Working Drawing	IWD	02	--	08	10	03	80	20	--	--	50	150
08	6465	3D Max	MAX	01	--	03	04	--	--	--	--	--	50	50
09	6579	Advance Interior Design	AID	02	--	07	09	08	160	40	--	25	25	250
10	6580	Specialty Interior Design	SID	02	--	08	10	--	--	--	50	--	50	100
Any ONE from Elective I														
11	6581	Landscape Design	LDG	01	--	04	05	--	--	--	--	50	50	100
	6582	Set Design	SDG	01	--	04	05	--	--	--	--	50	50	100
	6583	Graphic Design	GDG	01	--	04	05	--	--	--	--	50	50	100
TOTAL				20	--	44	64	22	560	140	50	150	400	1300

Total Courses : 11
 Total Credits : 64
 Total Marks : 1300

Assessment of PR/ OR/ TW:

- 1) All orals & practical are to be assessed by external & internal examiners.
- 2) * Indicates TW to be assessed by external & internal examiners.
- 3) Other TW are to be assessed by internal examiners.

PROGRAMME - DIPLOMA IN INTERIOR DESIGN AND DECORATION
SAMPLE PATH
ENTRY LEVEL- 10+

Nature of Course	First Year		Second Year		Total
	Odd Term	Even Term	Odd Term	Even Term	
Compulsory	6101 (05) CMS	6266 (04) PRS	6319 (04) SES	6320 (04) ANP	
	6102 (03) DLS	6267 (06) PPJ	6410 (04) PPR	6321 (05) ETM	
	6123 (02) SKR	6268 (05) CDD	6411 (02) SEM	6412 (04) PRO	
	6124 (10) BSD	6269 (08) IND	6463 (07) ICT	6464 (10) IWD	
	6125 (04) BMP	6270 (07) BCT	6465 (04) MAX	6580 (10) SID	
	6126 (08) PPP	6302 (02) EVS	6579 (09) AID		
		6309 (03) EDP			
Total credits	32	35	30	33	130
Elective	--	--	I) Any ONE from Elective: I 6581 : LDG 6582 : SDG 6583 : GDG (05)		--
Total Credits (Elect.)	--	--	05		05
Total Courses	06	07	07	05	25
Total Credits (Compulsory Elect.)	32	35	35	33	135
Grand Total of Credits					135

Note: Figures in brackets indicates total credits

PROGRAMME : Diploma Programme in CE / ME / PS / EE / IF / CM / EL / AE / DD / ID
COURSE : Communication Skills (CMS) **COURSE CODE** : 6101

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
03	--	02	05	03	Max.	80	20	100	--	--	50	150
					Min.	32	--	40	--	--	20	--

1.0 RATIONALE:

Proficiency in English is one of the basic needs of technical students hence this curriculum aims at developing the functional and communicative abilities of the students. As Communication skills play a decisive role in the career development and entrepreneurship this course will guide and direct to develop a good personality and effective communication too. This course is compiled with an aim of shaping minds of engineering students while catering to their needs.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Understand & use basic concepts of Communication in an organisation and social context.
2. Use reasonably and grammatically correct English language with reading competency.
3. Utilise the skills to be a competent communicator.
4. Develop comprehension skills, improve vocabulary, and acquire writing skills.
5. Overcome language and communication barriers with the help of effective communication techniques.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Apply the process and identify types of Communication for being an effective communicator
2. Identify the barriers in the communication process and apply ways to overcome them
3. Interpret graphical information precisely
4. Use formal written skills for business correspondence.
5. Exhibit listening & reading skills for improving competencies in communication.
6. Pronounce English sounds with correct stress and intonation in day to day conversations.
7. Construct correct grammatical sentences in oral and written communication.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Communication	1a. Define communication & objectives 1b. Describe the process of Communication 1c. Differentiate between types of communication	1.1 Meaning of communication: definition, objectives and Importance of communication 1.2 Elements/Process of communication 1.3 Types of communication: Formal, Informal, Verbal, Nonverbal, vertical, Horizontal, Diagonal	04
Unit-II	2a. Explain types of barriers	2.1 Barriers to Communication a) Physical Barrier	04

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Communication Barriers	2b. Describe the principles of effective communication 2c. Discuss ways to overcome barriers. 2d. Identify various barriers	<ul style="list-style-type: none"> • Environmental(time, noise, distance and surroundings) • Personal(deafness, stammering, ill-health, spastic, bad handwriting, temporary physical disabilities) b) Mechanical: Machines/means oriented c) Psychological : Day dreaming prejudice, emotional, blocked mind, generation gap, status, inactiveness, perception d) Language: Difference in language, technical jargons pronunciation and allusion 2.2 Ways to overcome barriers 2.3 Principles of effective communication	
Unit-III Nonverbal & Graphical communication	3a. Explain use of body language in oral conversations 3b. Label and interpret the graphical information correctly 3c. Describe the importance of graphical and nonverbal methods in technical field.	3.1 Non-verbal codes: <ul style="list-style-type: none"> • Proxemics • Chronemics • Artefacts 3.2 Aspects of body language(Kinesics) 3.3 Graphical communication <ul style="list-style-type: none"> • Advantages and disadvantages of graphical communication • Tabulation of data and its depiction in the form of bar graphs and pie charts. 	06
Unit-IV Formal Written Communication	4a. Develop notices, circulars and emails 4b. Draft letters on given topics 4c. Prepare technical reports. 4d. Develop various types of paragraphs.	4.1 Office Drafting :Notice, Memo, Circulars and e-mails 4.2 Job application and resume 4.3 Business correspondence : Enquiry, Reply to an enquiry order, complaint, adjustment, 4.4 Technical Report Writing : Accident report, Fall in Production / survey, progress Investigation / maintenance 4.5 Paragraph writing-Types of paragraphs <ul style="list-style-type: none"> • Descriptive • Technical • Expository 	12
Unit-V Listening skills	5a. Differentiate between hearing and listening. 5b. Apply techniques of effective listening.	5.1 Listening versus hearing 5.2 Merits of good listening 5.3 Types of listening 5.4 Techniques of effective listening	02
Unit-VI Reading Skills	6a. Describe various methods to develop	6.1 Reading for comprehension 6.2 Reading styles 6.3 Developing vocabulary	06

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	6b. Develop reading competencies. 6c. Explain steps to comprehend passage	6.4 Methods of word formation: prefixes, suffixes, collocations, synonyms, antonyms, Homophones, Homonyms. 6.5 Comprehension of unseen passages	
Unit-VII Speaking Skills	7a. Demonstrate Correct Pronunciation, stress and intonation in everyday conversation 7b. Develop formal conversational techniques. 7c. Deliver different types of speech	7.1 Correct Pronunciation-Introduction to sounds vowels, consonants, stress, intonation 7.2 Conversations : • Meeting & Parting • Introducing & influencing requests • Agreeing & disagreeing • Formal enquiries 7.3 Speech-Types of speech • Welcome Speech • Farewell speech • Vote of thanks	06
Unit-VIII Language Grammar	8a. Use grammatically correct sentence in day to day oral and written communication 8b. Distinguish between determiners & apply correctly in communicative use 8c. Use correct verb for given course. 8d. Use appropriate preposition as per time, place and direction. 8e. Transform the sentences.	8.1 Tense • Present Tense(Simple, Continuous, perfect, perfect Continuous) • Past Tense(Simple, Continuous, perfect, perfect Continuous) • Future Tense(Simple) 8.2 Determiners • Articles (A, An, The) • Some, Any, Much, Many, All, Both, Few, A few, The few, Little, A little, The little, Each, Every. 8.3 Modal Auxiliaries Can, Could, May, Might, Shall, Should, Will, Would, Must, Have to, Need, ought to 8.4 Sentence Transformation • Voice • Degree • Affirmative, Negative, Assertive, 8.5 Prepositions • Time • Place • Direction 8.6 Conjunctions	08
TOTAL			48

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Communication	--	02	04	06
II	Communication Barriers	02	02	02	06
III	Nonverbal & Graphical communication	--	02	08	10
IV	Formal Written Communication	--	04	18	22

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
V	Listening Skills	--	--	04	04
VI	Reading Skills	--	02	06	08
VII	Speaking Skills	02	02	04	08
VIII	Language Grammar	--	04	12	16
TOTAL		04	18	58	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Hours
1	I	Communicate on the given topic/situation.	02
2	II	Identify communication barriers	02
3	III	Non-verbal communication	02
4	IV	Business letter writing & job application	02
5	IV	Draft official letter	02
6	IV	Technical report writing on given topic	04
7	V	Attend a seminar and preparing notes	02
8	VI	Vocabulary building with different methods	02
9	VII	Language lab Experiment for correct pronunciation of sounds	04
10	VII	Write & present conversations on given situations	02
11	VIII	Grammar application-various exercises on grammar	04
12	I to VIII	Mini project (on given topic)	04
TOTAL			32

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Prepare charts on types of communication.
2. Convert language information in graphical or nonverbal codes.
3. Maintaining own dictionary of difficult words, words often confuse, homophones & homonyms.
4. Listening daily English news on television or radio & to summaries it in their language.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Use audios of correct pronunciations.
2. Show videos about use of body language in oral formal conversations

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Effective English Communication	Krishna Mohan and Meenakshi Raman	Tata McGraw Hill Publishing Co. Ltd.
2	English for practical purpose	Z. N. Patil	Macmillan
3	Spoken English	Basal and Harrison	Orient Longman
4	Contemporary English Grammar	R. C. Jain, David Green	Macmillan
5	Business correspondence and Report writing	R. C. Sharma and Krishna Mohan	Tata McGraw Hill Publishing
6	English Communication for Polytechnics	S. Chandrashekhar & others	Orient Black Swan
7	Active English Dictionary	S. Chandrashekhar & others	Longman

B) Software/Learning Websites

1. <http://www.communicationskills.co.in>
2. <http://www.mindtools.com>
3. <http://www.communication.skills4confidence>
4. <http://www.goodcommunication skills.net>
5. <http://www.free-english-study.com/>
6. <http://www.english-online.org.uk/>
7. <http://www.englishclub.com>
8. <http://www.learnenglish.de>
9. <http://www.talkenglish.com/>
10. <http://www.englishgrammarsecrets.com>
11. <http://www.myenglishpages.com/>
12. <http://www.effective-business-letters.com/>
13. <https://www.englishlistening.com/>
14. <https://www.class-central.com>

C) Major Equipments/ Instruments with Broad Specifications

1. Digital English Language Laboratory.
2. Computers for language laboratory software
3. Headphones with microphone

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1									H		M
CO2									H		M
CO3	M								H		M
CO4		M							H		M
CO5	M								H		M
CO6		M							H		
CO7	M								H		M

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in CE / ME / PS / EE / IF / CM / EL /AE / DD / ID

COURSE : Development of Life Skills (DLS)

COURSE CODE : 6102

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	02	03	--	Max.	---	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0 RATIONALE:

This course will develop the student as an effective member of the team in the organization. It will develop the abilities and skills to perform at highest degree of quality. It enhances his/her capabilities in the field of searching, assimilating information, handling people effectively and solving challenging problems.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop the abilities and skills to perform at highest degree of quality as an individual as well as a member of core group or team.
2. Enhance capabilities in the field of searching, assimilating information, managing the given task, handling people effectively, solving challenging problems.
3. Understand and use personal management techniques.
4. Analyse their strengths, weaknesses, opportunities and threats.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Analyse self attitude and behaviour.
2. Acquire self learning techniques by using various information sources.
3. Identify personal strengths to get future opportunities.
4. Develop presentation skills with the help of effective use of body language.
5. Enhance leadership traits and recognise the importance of team work.
6. Face interview without fear.
7. Resolve conflict and solve problems by appropriate methods.
8. Set the goal for personal development.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Self Analysis	1a. Explain types of Motivation. 1b. Differentiate between types of attitude. 1c. Describe types of behaviour 1d. Analyse SWOT of an individual	1.1 Motivation-types, need 1.2 Attitude-types, tips for developing positive attitude 1.3 Behaviour-types-passive, assertive, aggressive 1.4 Confidence building-need, importance 1.5 SWOT analysis-(significance)	02
Unit-II Self Learning	2a. Explain the self learning techniques by enhancing memory	2.1 Need & importance of SLT 2.2 Information source-Primary, secondary, tertiary	02

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Techniques (SLT)	and concentration 2b. Apply practical skills for effective learning 2c. Identify the information sources	2.3 Enhancing Memory and concentration 2.4 Learning Practical Skills- need of Practical Skills types of practical skills-technical, organisational, human Domains of learning 1)cognitive 2)Affective 3)psychomotor 2.5 information search techniques-library search, internet search	
Unit-III Self Development & Management	3a. Explain the Need of self Management 3b. Set the goals for personal development	3.1 Stress management-remedies to avoid, minimize stress 3.2 Health management-importance of Diet & exercise 3.3 Time management-time planning, tips for effective time management 3.4 Goal setting-need and importance 3.5 Creativity	03
Unit-IV Emotions	4a. Explain nature and types of human emotions 4b. Differentiate between cognitive and emotional intelligence	4.1 Basic emotions- 4.2 Emotional intelligence 4.3 Emotional stability/maturity	01
Unit-V Presentation Skills	5a. Develop presentation skills with the help of body language 5b. Describe utilisation of voice quality in oral conversations	5.1 Body Language- Codes, dress and appearance, postures, gestures Facial expressions 5.2 Voice and language 5.3 Use of aids:-OHP, LCD projector, white board	02
Unit-VI Group Discussion and Interview Techniques	6a. Participate in group discussion 6b. Face interview without fear.	6.1 introduction to group discussion 6.2 ways to carry group discussion 6.3 Parameters-analytical, logical thinking, Decision making 6.4 Interview techniques Necessity, tips for handling common questions	02
Unit-VII Team Work	7a. Recognise the importance of team work 7b. Enhance leadership qualities	7.1 stages of team development 7.2 Understand and work with dynamic group 7.3 Ingredients of effective teams. 7.4 leadership in teams, handling frustration in group	02
Unit-VIII Conflicts & Problem Solving	8a. Describe sources of conflicts and resolve conflicts 8b. Develop lateral thinking abilities 8c. Identify innovative methods in solving Problems.	8.1 sources of conflict 8.2 Resolution of conflict 8.3 ways to enhance interpersonal relation 8.4 Steps in problem solving 8.5 Problem solving techniques-trial, error & brainstorming	02
TOTAL			16

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Not Applicable

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignments/tasks should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the competencies.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in a common list at the beginning of curriculum document for this programme. Faculty should refer to that common list and should ensure that students also acquire those Programme Outcomes/Course Outcomes related to affective domain.

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	I	Self Introduction-giving personal details for introducing self	02
2	II	SLT-Access the book on biography of scientist/industrialist/invention from the library or internet	02
3	I	Deliver a seminar for 10 minutes using presentation aids.	02
4	IV	Prepare PowerPoint slides on given topic and make presentation	02
5	VII	Case study for problem solving in an organisation	04
6	V	Discuss a topic in a group & prepare minutes of discussion.	02
7	VI	Prepare questionnaire for your friend or any person in the organisation to check emotional intelligence.	02
8	VII	Goal setting for achieving the success-SMART goal.	02
9.	I	SWOT Analysis for yourself with respect to your Strength, Weakness, Opportunities & Threats	04
10	III	Attend a seminar or a guest lecture and note down the important points and prepare a report of the same.	02
11	VIII	Undertake any social activity in a team and prepare a report about it(i.e. tree plantation, blood donation, environment protection, rain water harvesting)	04
12	III	Management of self-stress management, time management, health management	04
		TOTAL	32

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Preparing personal time table.
2. Performing YOGA as a routine part of daily life.
3. Practicing breathing exercises.
4. Improving concentration by chanting and meditation.
5. Focusing on behavior skills and mannerism
6. Searching information on internet and newspapers.
7. Concentrating on various aspects of personality development.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Use of videos on personality development.
2. Use of power point presentation on health, time & stress management
3. Case study of an organization
4. Use of videos to show interviews of successful personalities.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Make Every Minute Count	Marion E Haynes	Kogan Page India
2	Body language	Allen Pease	Sudha Publication Pvt. Ltd.
3	Presentation Skills	Michael Hatton	ISTE New Delhi
4	Organizational Behavior	Pearson Education Asia	Tata McGraw Hill
5	Working in Teams	Chakravarty, Ajanta	Orient Longman
6	Develop Your Assertiveness	Bishop, Sue	Kogan Page India
7	Adams Time Management	Marshall Cooks	Viva Books
8	Time Management	Chakravarty, Ajanta	Rupa and Company
9	Target setting & Goal Achievement	Richard hale, Peter whilom	Kogan page India
10	Creativity & problem solving	Lowe and Phil	Kogan page (I)P Ltd
11	Basic Managerial Skills for all	E. H. McGrah, S. J.	Pretice Hall of India, Pvt. Ltd.

B) Software/Learning Websites

- | | |
|---|---|
| 1. http:// www.mindtools.com | 2. http:// www.successconsciousness.com |
| 3. http:// www.studyhabits.com | 4. http:// www.motivateus.com |
| 5. http:// www.quickmba.com | 6. http:// www.success77.com |
| 7. http:// www.stress.org | 8. http:// www.topachievement.com |
| 9. http:// www.ethics.com | 10. http:// www.creativityforlife.com |
| 11. http:// www.motivation.com | 12. http:// www.queendom.com |

C) Major Equipments/ Instruments with Broad Specifications

Not Applicable

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1					M		L	M	H		H
CO2		M					H		M		H
CO3					M		M	M	H		H
CO4					L	M	M		H		M
CO5							M	M	H		H
CO6						M			H		M
CO7					M	M		M	M	L	M
CO8							M	L	H		L

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID).

COURSE : Sketching and Rendering (SKR)

COURSE CODE : 6123

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
--	--	02	02	--	Max.	--	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0 RATIONALE:

Students should acquire knowledge of the various drawings, which effectively communicate their designs. To make students improve their sketching skills & drawing abilities.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Improve their sketching skills and drawing abilities
2. Learn and understand the techniques of various methods of drawing.
3. Understand the use of colors and their effects in drawing.
4. Acquire knowledge in the field of interior perspective drawing and sciography.
5. Improve presentation skills, techniques for construction as a tool towards effective visualization and presentation.
6. Students should acquire knowledge of the various drawings, which effectively communicate their designs.
7. Develop sketching abilities using observational drawing methods

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Draw free hand sketches & lettering.
2. Illustrate procedures of drawing, free hand sketches and lettering.
3. Draw three dimensional views.
4. Identify and choose different tools for sketching and rendering.
5. Render drawings in various mediums.
6. Prepare presentation drawings.

4.0 COURSE DETAILS:

There are no separate classes for theory as given below. The relevant theory has to be discussed before the practical during the practical sessions.

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics
Unit-I Introduction to Sketching and Rendering	1a. State the importance of sketching and rendering. 1b. List and Describe the pencils used for sketching. 1c. List and describe the various rendering mediums.	1.1 Introduction and importance of sketching and rendering. 1.2 Use of pencils, different inks, ink pens and rendering mediums. 1.3 Scale and proportion in general.

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics
Unit-II Basic of Graphical Representation	2a. Draw different types of lines 2b. Draw different types of cubism. 2c. Draw different types of Mannequin.	2.1 Study of line, shapes and forms. 2.2 Line and its meaning-Thick & Thin line, Vertical & Horizontal line, slope line, curved line, section line, dotted line, dimension line, construction line, Break line. 2.3 Draw cubism form 2.4 Proportion of Mannequin.
Unit-III Principles and Techniques of perspective views	3a. Draw a natural form. 3b. Draw dynamic form. 3c. Draw rapid sketch of interior design.	3.1 Conversion of natural form and shape into modern form line, chair, table, etc 3.2 Conversion of basic form into dynamic form. 3.3 Rapid sketching.
Unit-IV Rendering and Presentation Techniques	4a. Name the mediums require for rendering. 4b. Render the drawing in various rendering techniques.	4.1 Rendering techniques using graphite and colour pencils, pen and ink, watercolours, Photo (Fuji) colours, dry pastels, poster colours, (combination of inks with water colours, inks with colour pencils.) study of rendering effects (sciography, light, and reflection of light.) 4.2 Study of preparing presentation drawings.

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

*Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.*

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	II	Types of lines and line work: Thick & Thin line, Vertical & Horizontal line, slope line, curved line.	02
2	II	Draw different types of cubism	02
3	II	Draw different types of Mannequin.	02
4	III	Draw natural form.	04
5	III	Draw dynamic form.	02
6	III	Rapid sketching.	04
7	IV	Handling pencil colours, dry pastels and water colours	04
8	IV	One point perspective rendered view of a room	04
9	IV	Two point perspective rendered view of a room	04
10	III	Indoor sketching	02
11	IV	Presentation and preparing of portfolio	02
		TOTAL	32

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Prepare 3D models of basic geometric shapes (cube, rectanguloid, cone, cylinder, prism, pyramid) etc.
2. Collect various lettering fonts.
3. Collect pictures of 3D furniture objects.
4. Draw 3D objects and render it in any medium.
5. Sketch daily 3 furniture objects and interior views.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Show animated videos of three dimensional objects.
2. Show sketches and paintings made by various artists.
3. Arrange workshop/ demo on sketching and rendering techniques.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Perspective Principles	M.G. Shah & K.M. Kale	Asia Publications, Mumbai
2	Drawing- A creative Process	Francis D.K. Ching, John Wiley Sons.	John Wiley Sons, New York
3	How to paint & draw	Bodo W. Jaxtheimer	Thames & Hudson, London
4	Geometrical drawing for art students	I.H. Morris,	2nd revised edition Orient Longman, Calcutta

B) Software/Learning Websites

1. hubpages.com > Arts and Design > Drawing
2. howtodraw.pencilportraitsbyloupemberton.co.uk
3. <https://blog.udemy.com/pencil-drawing-techniques>
4. www.artistsnetwork.com/drawing-sketches
5. <https://www.pinterest.com/explore/drawing-techniques>

C) Major Equipments/ Instruments with Broad Specifications

The student should carry:

Pencils- HB, B, 2B, 3B, 4B, 6B, Eraser, A3 Drawing sheets/Sketch book, various coloring medium, French curve

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum, 200 GB Hard Disk OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i : 1024×768 pixels (XGA) Bright Link 475Wi/485Wi : 1280×800 pixels (WXGA) Lens F= 1.80 Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual Zoom adjustment- Digital Zoom ratio-1:1.35 OR Latest specifications at time of procurement.
Projector Screen	116" Diagonal viewing screen Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) up to 14 ppm Print speed. Duty cycle (monthly, A4) up to 5000 pages, Recommended monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1								H	H		H
CO2	H			H				H	H	M	H
CO3	H			H				H	H		H
CO4		H					M	M	M	M	H
CO5				H				H	H		H
CO6	H	M		H			M	H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship.

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID).

COURSE : Basic Design. (BSD)

COURSE CODE : 6124

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
04	--	06	10	03	Max.	80	20	100	--	--	50	150
					Min.	32	--	40	--	--	20	--

1.0 RATIONALE:

This course is the core course of the total course and forms the Spine of the interior design profession, which intends to equip the students with thorough knowledge of basic concepts of interior design. The students shall also learn planning process and develop creative skills required for the Courses- Interior design, Advance Interior Design and Specialty Interior design of second, third and fourth semesters respectively.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop knowledge about design and decoration.
2. Develop knowledge about tools of interior design based on anthropometry, Aesthetical, Functional & Technological aspects.
3. Identify Concepts with approach; Styles & Historical Periods; and Themes.
4. Implement the process of Design.
5. Understand the Ergonomics for different activities.
6. Develop knowledge about basic design in interiors.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Identify the elements and principles of interior design
2. Identify role of an interior designer with respect to all the different aspects of residential and commercial design.
3. Identify the various attributes for period furniture and style furniture.
4. Apply the various dimensions to various furniture items according to Ergonomics.
5. Give the importance of color and color theory.
6. Sketch anthropometric data for different functions.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Interior Design and Decoration	1a. Differentiate design and decoration. 1b. List Role of Interior Designer With respect to all the different aspects of commercial and Residential interiors. 1c. Describe the importance of	1.1 Understanding design and décor 1.2 Importance of design- Optimisation, Economical, Time, Maintainability, Multiplicity. 1.3 Role of Interior Designer. 1.4 Interest of user w.r.t. economy, comfort, safety & security. 1.5 limitations on interior design due to existing external constraints such as, entries & exits(points of egress), positions	12

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	<p>economy, comfort, safety & security.</p> <p>1d. Describe the limitations on interior design due to existing external constraints.</p> <p>1e. List various Structural elements.</p>	<p>of windows, ventilators; sunk</p> <p>1.6 Structural elements.</p> <p>1.7 Universal design to cater all types of users, including differently abled.</p> <p>1.8 Scope of work- new projects and refurbishments (Additions & alterations)</p>	
<p>Unit-II</p> <p>Tools of Interior Design</p>	<p>2a. List Elements and principles of interior design.</p> <p>2b. Describe different principles of interior design.</p> <p>2c. Describe different design considerations</p> <p>2d. Give Ergonomics and anthropometrics for different functions.</p>	<p>2.1 Understanding aesthetical, functional, technological aspects. Aesthetical tools</p> <p>2.2 Elements of design- Point, Line, Shape, Form, Colour with the colour theory, Texture and Pattern</p> <p>2.3 Principles of Design- Balance, Emphasis, Rhythm, Harmony, Scale and Proportion</p> <p>2.4 Aesthetical design consideration</p> <ul style="list-style-type: none"> • Physical- (touch, smell.) • Social- (Interactive, status symbols.) • Psychological- (Emotional comfort, Derivable Pleasure from use.) • Ideological-(Patriotic, Socialistic, Environmental.) • Opinions- (Influenced by associations such as Newness, Nostalgic, Thrill, Risk involved, Safety, reliability.) <p>2.5 Functional tools</p> <ul style="list-style-type: none"> ▪ Ergonomics- study of ergonomics Postures, Anthropometrics, Biomechanics Zoning, Grids, Modulation of space within and without, envelope space (furniture, room) 	<p>14</p>

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-III Design Concepts	3a. Describe the various different attributes for Period furniture. 3b. Describe the various different attributes for Style furniture. 3c. Sketch themes on:- Beach, Mela, Dessert, Village.	3.1 Concepts-(Manifestation of realization through Contemplative germination and evolution of thought that gives design approach, although with clear understanding that the concept can be explained but not defined.) (Not for examination). 3.2 Styles- Historical & Cultural approach (Stress shall be given on identification of Classical Period, Medieval Period, 19th Century and Oriental. Focus of study shall be on Indian and Contemporary Period) 3.3 Occidental, Classical Period, Medieval Period, 19th Century, Contemporary Period, Oriental 3.4 Japanese style, Chinese style, Thai style, Indian style Themes- (The common thread that binds the entire design in a story line such as Beach, 'Mela', Dessert, Village.)	26
Unit-IV Planning Process	4a. Describe Design Process from concept to final working drawings. 4b. Prepare alternative schemes based on personal interpretations of design and relevant data using design tools and design concepts. 4c. Prepare presentation and technical Drawings	4.1 Understanding General process of design (Need-Design brief-Information collection-Developing Alternatives- Analysis-Solution) 4.2 Planning Process of Interior Design 4.3 Design Brief- <ul style="list-style-type: none"> ▪ Simple and clear description about what is to be Designed ▪ Relevant Data collection such as location & condition of site, Client profile & requirements, Materials. ▪ Data Analysis- Analysing and forming alternative schemes based on personal interpretations of design and relevant data using design tools and design concepts. ▪ Selection- Finalising the best scheme. ▪ Presentation- (Presentation and Technical Drawings) 	12
TOTAL			64

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Interior Design and Decoration	06	04	04	14
II	Tools of Interior Design	10	20	10	40
III	Design Concepts	06	10	04	20
IV	Planning Process	02	02	02	06
TOTAL		24	36	20	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
		Draw considering the given parameters:	
1	II	Illustrate the Principles of Interior design using Elements of design. Elements of design	
		a. line: types of line	04
		b. shapes and forms	04
		c. textures d. patterns	04
		d. colours	06
		e. light	02
		Principles of design	
	a. Balance b. Emphasis c. Rhythm d. Harmony e. Scale and Proportion	06	
2	II	Draw- ergonomical study (activity wise) w. r. t. postural & psychological comforts for normal and differently abled users. Standing:	
		a. Cooking	04
		b. Drafting	
		c. Opening doors & using overhead units	
		d. Working at shop / bank counters	03
		e. Bathing & using urinals	03
		Squatting	
		a. Using Indian W. C. / squats	03
		b. Using storages below counters	03
		c. Manual sweeping & mopping	03
		Sitting:	
		a. Working on computers / work tables	03
		b. Dining	03
c. Relaxing	03		
d. Discussing	03		
e. Using European W. C.	03		
Sleeping:			
Sleeping, Resting	03		
3	III	Draw sketches of the elements such as entablatures, cornices, base, capital, column, beam, relief work, stucco work, sculptures, furniture	

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
		for the following periods: A. Occidental	
		a. Classical period	03
		b. Medieval period	03
		c. 19 th century	03
		d. Contemporary period.	03
		B. Oriental	
		a. Japanese style	02
		b. Chinese style	02
		c. Thai style	02
		d. Indian style.	02
4	IV	Perform Case studies w. r. t. aesthetics and functionality	
		a. Living rooms & Lounges	02
		b. Bed rooms, Hotel Suites	02
		c. Kitchens (Residential & Hotels)	02
		d. Dining areas (Residential & Hotels)	02
		e. Toilets(Residential, Commercial)	02
		f. Work areas (study rooms, offices, shops, conference rooms, executive cabins)	03
TOTAL			96

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect pictures/images showing various elements and principles of design.
2. Prepare reports on Case studies of Residential as well as Commercial areas.
3. Collect the Ergonomical data for different activities.
4. Collect the samples of different textures of various materials.
5. Collect the pictures of furniture explaining different styles and period from magazines and internet.
6. Collect images of various furniture items in Residential and Commercial interiors.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (IF ANY):

1. Arrange expert seminar of industry person in the area of Residential as well as Commercial interiors.
2. Explorations of different Residential and Commercial interiors through various sites available on internet.
3. Explorations of different styles used in interiors through various sites available on internet.

9.0 LEARNING RESOURCES:

A) Text Books

Sr.No.	Title of Book	Author	Publication
1	Time Saver Standard for Interior Design & Space Planning	Joseph De Chaira Jullius Panero Martin Zelnik	McGraw Hill New York
2	Interior Design	John Pile	Harry N. Adry Publishers
3	Interior Design	Ahmed Kasu	TWAIN Pub. Bombay
4	Human Dimensions and Interior Spaces	Jullius Panero, Martin Zelnik	Whitney Library, New York
5	Beginning of Interior Environment	Phillis Sleen, Allen	New York
6	Basic Design of Anthropometry	Shirish Bapat	Bela books Publishers
7	Living Area (Interior Space)	Shirish Bapat	Bela books Publishers
8	Interior Design Illustrated	Francis D. K., Ching	Van Norstrund, New Delhi

Sr.No.	Title of Book	Author	Publication
9	Design Fundamental in 1st architecture	V. S. Prammar	Somaiya Pub. Pvt. Ltd.

B) Software/Learning Websites

1. freshome.com/2007/07/12/7-most-important-**interior-design**-principles
2. www.dummies.com
3. www.rentaldecorating.com
4. www.apartmenttherapy.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum, 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i : 1024×768 pixels (XGA) Bright Link 475Wi/485Wi : 1280×800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction Full colour, 16.77 million colours Focus adjustment- Manual Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage. OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H						M	H	M		H
CO2	H	H	H		H	H	H	H	M		H
CO3	M				M				M		H
CO4	H		M	H	H		H	M	H		H
CO5				M	M	M		H	H		H
CO6	H			H	H		M	H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Basic Materials and Products (BMP)

COURSE CODE : 6125

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
04	--	--	04	03	Max.	80	20	100	--	--	--	100
					Min.	32	--	40	--	--	--	--

1.0 RATIONALE:

The knowledge of basic materials and products shall help the learner to enable their use, through methods of construction, for designing Interior spaces. The knowledge of such materials & products along with various construction techniques & knowledge of services enable students to achieve desired design outcome.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Describe the properties, types and uses of various building materials.
2. Choose common building materials as per requirements.
3. Describe different clay products used in interior for various purposes.
4. Describe the properties, types and uses of timber and timber products used in interiors.
5. Describe the different types of electrical and lighting materials.
6. Identify and apply various floor coverings.
7. Describe eco-friendly materials.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Select different building materials and products required for construction.
2. Identify common building materials as per requirement.
3. Select appropriate timber and wood products for different interior work.
4. Identify and select various light fittings and fixtures for interiors.
5. Identify and select various floor coverings for given use conditions.
6. Select eco-friendly materials for environmental concern.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Common Building Materials	1a. Identify the various types of stones and its application. 1b. Differentiate between different types of stones. 1c. List the types of stones. 1d. State the properties and uses of stones. 1e. Describe different clay products. 1f. Name and define the clay products-terracotta, ceramic, earthenware, stoneware & porcelain.	1.1 Stone <ul style="list-style-type: none"> ▪ Geological, Physical and Chemical classification ▪ Types, sizes, properties and use of Igneous, Sedimentary and Metamorphic stones. ▪ Properties and uses of stone 	08
		1.2 Clay <ul style="list-style-type: none"> ▪ Clay products ▪ Types, Quality, Properties & Applications of Clay:- <ul style="list-style-type: none"> • Tiles. • Earthenware. • Stoneware. 	06

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	<p>1g. Draw various types of roof tiles.</p> <p>1h. Name and draw types and shapes of bricks.</p> <p>1i. Define Terracotta.</p> <p>1j. State the advantages, disadvantages, properties and uses of Terracotta.</p> <p>1k. List the properties and types of Cement, Lime, Sand, Aggregates.</p> <p>1l. Describe the types and uses of Concrete, Mortars and Plasters.</p> <p>1m. List the properties and uses of gypsum.</p> <p>1n. select the varieties of timber</p> <p>1o. Draw & label the cross section of timber</p> <p>1p. Justify the uses, qualities and properties of timber.</p> <p>1q. Name and sketch the defects in timber.</p> <p>1r. Differentiate between hard woods and soft woods</p> <p>1s. List the uses of bamboo.</p> <p>1t. Select various wood products as per the needs.</p> <p>1u. State the uses & properties of veneers and plywood.</p> <p>1v. Differentiate between Veneers and Plywood.</p> <p>1w. Justify the uses of various wood products.</p>	<ul style="list-style-type: none"> • Ceramic. • Porcelain. <p>1.3 Bricks</p> <ul style="list-style-type: none"> ▪ Types, Quality, Properties and uses of Brick <p>1.4 Terra-Cotta</p> <ul style="list-style-type: none"> ▪ Types, Quality, Properties and uses of Terracotta <p>1.5 Cement, Lime, Sand And Gypsum</p> <ul style="list-style-type: none"> ▪ Types & Properties and uses of Cement, Lime, Fine and Course Aggregates. ▪ Types & Applications of Concretes, Mortars and Plasters ▪ Properties & Applications of Gypsum & its products <p>1.6 Timber</p> <ul style="list-style-type: none"> ▪ Classification and growth of trees and types of Timber ▪ Structure of a tree ▪ Quality, Properties and uses of Timber. ▪ Defects in Timber. ▪ Uses of Hardwood and Softwood such as Teak, Rose, Deodar, Sal, Cedar, Silver, Ebony, Bakul, Babul, Mahogany, Oak, Sandal etc. ▪ Use of cane, bamboo. <p>1.7 Wood Products</p> <ul style="list-style-type: none"> ▪ Types, Quality & Uses of Veneers and Plywood ▪ Types, Quality & Uses of Block Board, Particle Board, Fibre Board, Chip Board, Hard Board, MDF. 	<p>04</p> <p>02</p> <p>10</p> <p>10</p> <p>06</p>
Unit-II Electrical & Lighting Materials	<p>2a. List and describe the types of wires and wiring system.</p> <p>2b. Sketch the various types of electrical fixtures.</p> <p>2c. Sketch electrical and light fittings.</p>	<p>2.1 Types & Sizes of wires, conduits, casing capping</p> <p>2.2 Types & Sizes of Electrical fixtures such as ceiling roses, holders, switches, sockets, switchboards, MCB, ELCB.</p> <p>2.3 Types & Sizes of Electrical & Light fittings such as fans, Tube light fittings, Lamp fittings, Chandeliers.</p>	10
Unit-III Floor Coverings	<p>3a. List out types of materials used for floor coverings</p> <p>3b. justify importance of floor coverings</p>	<p>3.1 Rugs, durries and carpets of natural fibres, Carpets, PVC floors, Wood slats.</p> <p>3.2 Floor coverings of synthetic fibres and in rolls such as PVC carpets</p>	06

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
		miscellaneous floor coverings such as cork, parquet, rubber.	
Unit-IV Eco-friendly Materials.	4a. Define eco-friendly materials. 4b. Select various eco-friendly materials.	4.1 Eco-friendly materials. 4.2 Types and applications of eco-friendly materials such as bamboo, jute, cork, terracotta, etc.	02
TOTAL			64

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Common Building materials				(56)
	STONE	04	04	02	10
	CLAY	02	02	02	06
	BRICKS	02	02	02	06
	TERRA-COTTA	02	02	02	06
	CEMENT, LIME, SAND AND GYPSUM	04	04	02	10
	TIMBER	04	04	02	10
	WOOD PRODUCTS	02	04	02	08
II	Electrical & Lighting Materials	04	06	02	12
III	Floor Coverings	02	04	02	08
IV	Eco-friendly Materials.	02	02	--	04
TOTAL		28	34	18	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Visit a under constructed site in your locality.
2. Collect market rates for various materials like bricks, cement, tiles, etc.
3. Collect samples of flooring coverings and roof tiles.
4. Prepare report on common building materials.
5. Prepare power point presentation in groups.
6. Collect brochures and samples of building materials.
7. Prepare charts on materials and products.
8. Download videos on eco-friendly materials.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange expert seminar of industry person in the area of specialized materials.
2. Arrange a visit to a construction site.
3. Arrange a visit to exhibition related to building materials and products.
4. Lecture Method, Use of teaching aids, site Visits, market survey.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Materials of constructions	D. N. Ghosh	Tata McGraw Hill
2	Building Materials	Gurucharan Singh	Standard Pub, & Dist
3	Engineering Materials	S. C. Rangawala	Charottar Pub. Anand (India).
4	Engineering Materials	K. P Roy Choudhary	Oxford Press, New Delhi
5	Water Supply & Sanitary Engineering	S. C. Rangawala	Charottar Pub. Anand (India).
6	Construction Materials of Interior Design	William Rupp	Whitney Library
7	Building Construction	Sushil Kumar	Standard Pub. Delhi,

B) Software/Learning Websites

1. www.interiordezine.com/finishes/
2. www-surfaces.in
3. www.onlinedesignteacher.com/2016/02/interior-design-materials-finishes
4. www.contractdesign.com/products

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i: 1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm, Colour reproduction: Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed: black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H	H				H	M	H	M	M	H
CO2	H	H			M	H	M	H	M	M	H
CO3	M	H				H	M	H	M	M	H
CO4	H	H			M	H	M	H	M	M	H
CO5	M	H			M	H	M	H	M	M	H
CO6	H	H			H	H	M	H	M	M	H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID).

COURSE : Paraline Projection (PPP)

COURSE CODE : 6126

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	01	06	08	--	Max.	--	--	--	--	--	100	100
					Min.	--	--	--	--	--	40	--

1.0 RATIONALE:

The students learn the graphical language that is used extensively in communicating design thought: constructional methods and techniques in the form of presentation and technical drawings to a definite proportion and scale by using paraline projections. It also intends to equip the students in communicating with clients, consultants and contractors in the profession.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop drafting skills by using different drafting tools.
2. Develop graphical language along with lettering techniques.
3. Draft drawings to the scale.
4. Acquire knowledge of orthographic projections.
5. Present objects in two-dimension and three-dimension.
6. Acquire knowledge of isometric and axonometric Views.
7. Develop presentation skills.
8. Develop knowledge of graphical presentation.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Draw free hand sketches & lettering.
2. Analyse effect of colours, shades and shadows.
3. Draw two & three dimensional geometrical objects.
4. Convert 2 dimensional objects into 3 dimensional views & vice versa.
5. Draw drawings to the scale.
6. Render drawings in various mediums.
7. Prepare presentation drawings.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Drawing Equipments and Drafting standards	1a. List the tools used for drafting. 1b. Describe the scale use for drafting. 1c. Describe the use of pencil and different ink pens for drafting.	Use of drafting equipments. 1.1 Introduction of drawing table and boards, How to handle paper and pencil 1.2 Use of pencil, different inks, ink pens. 1.3 Types of Scales, Scale and proportion in general.	01

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-II Basic of Graphical Representation	2a. Draw different types of lines 2b. List and draw various shapes and forms. 2c. Draw various patterns and textures. 2d. List and sketch material indication use in construction. 2e. Describe different types of annotations.	Study of line, shapes and forms. 2.1 Line and its meaning-Thick & Thin line, Vertical & Horizontal line, slope line, diagonal line, curved line, section line, dotted line, dimension line, construction line, Break line. 2.2 Shapes-Square, rectangle, triangle, circle, polygons. 2.3 Forms-Geometrical, Decorative, Abstract, Natural, Ornamental 2.4 Tone- Lights and Shades 2.5 pattern and texture 2.6 Material indication- wood, stone, brick, R.C.C., P.C.C., stone masonry, brick masonry, steel, glass, upholstery. 2.7 Annotation. 2.8 Lettering- ▪ free hand lettering small/capital ▪ lettering with drafting instrument	06
Unit-III Paraline Projection	3a. Define orthographic projection. 3b. Draw plan, elevations and sections of given objects. 3c. Draw isometric and axonometric views of the given object.	Orthographic Projection (plan, sections and elevations) (First Angle method only) 3.1 Projection of points, lines and plane figures. 3.2 Development of solids 3.3 Projection of solids 3.4 Section by Horizontal, Vertical and inclined plane. 3.5 furniture measuring and drawing at different scale 3.6 Isometric projection 3.7 Axonometric projection	06
Unit-IV Rendering and Presentation Techniques	4a. Name the mediums require for rendering. 4b. Render the drawing in various media. 4c. Present various rendering effects.	4.1 Rendering techniques using graphite and colour pencils, pen and ink, watercolours, Photo (Fuji) colours, dry pastels, poster colours, (combination of inks with water colours, inks with colour pencils.) study of rendering effects (sciography, light, and reflection of light.) 4.2 Study of preparing presentation drawings.	03
TOTAL			16

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping

matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

PRACTICALS

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	I	Prepare name plate and draw horizontal and vertical lines by using different pencils- H, HB, B, 2B, 4B and 6B	06
2	II	Draw types of lines: Thick & Thin line, Vertical & Horizontal line, slope line, diagonal line, curved line, section line, dotted line, dimension line, construction line and Break line.	06
3	II	Sketch lettering : free hand lettering, lettering with drafting instrument	06
4	II	Draw types of geometrical shapes: Square, rectangle, triangle, circle, polygons (pentagon, hexagon, octagon)	06
5	II	Draw types of forms: Geometrical, Decorative, Abstract, Natural, Ornamental	06
6	II	Prepare types of 2D composition using above forms	06
7	II	Prepare types of textures (visual)	06
8	II	Indicate materials: wood, stone, brick, R.C.C., P.C.C., stone masonry, brick masonry, steel, glass, upholstery	06
9	III	Draw Orthographic projection : (Plans, elevations and sections of) a. Basic forms- cube, cone, cylinder, pyramid. b. Minimum 4 furniture objects	06 06
10	III	Draw Isometric projection of a. Basic forms b. Room with furniture objects	06 06
11	III	Draw Axonometric projection of a. minimum 4 furniture objects b. Room with furniture objects	06 06
12	IV	Prepare a fully rendered presentation drawing of any residential interiors such as living room, bed room or commercial space such as executive's/director's cabin, waiting lounge of a hotel, office work space. (A1 size, white or coloured, plain or textured sheets) a. Plan b. Sectional elevations	06 06
TOTAL			96

ASSIGNMENTS

Sr. No.	Unit No.	Tutorials Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	I	Drawing Equipments and Drafting standards	01
2	II	Basic of Graphical Representation	
		Line, shapes and forms.	01
		Tone- Lights and Shades	02
		Patterns and textures	02
		Annotation.	01
		Free hand lettering	01
3	III	Orthographic projection	02
4	III	Isometric projection	02
5	III	Axonometric projection	02
6	IV	Rendering and Presentation Techniques	02
TOTAL			16

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Sketch basic 2D and 3D shapes and forms.
2. Collect and draw various lettering fonts.
3. Prepare a name plate with suitable lettering font for any residence.
4. Prepare 3D models of basic geometric shapes (cube, rectangularoid, cone, cylinder, prism, pyramid) etc.
5. Collect samples for textures (tactile).
6. Collect pictures of 3D furniture objects.
7. Sketch 3D furniture objects and render them in any medium.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Show animated videos of three dimensional objects.
2. Introduction of computer aided software's.
3. Arrange a basic workshop on preparing 3D paper models.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Engineering drawing (plane and solid geometry)	N. D. Bhatt	Charottar Pub. Anand, (Guj)
2	Interior design	Ahmed Kasu	Twain Pub. Bombay.
3	Graphics	Grant Reid Asla landscape	WHITNEY LIBRARY, NEW YORK.
4	Interior graphics and design standard.	S. C. Rein Koff.	Whitney library, New York.
5	The Thames and Hudson manual of rendering with pen and ink.	Robert W. Gill.	The Thames and Hudson ltd. London

B) Software/Learning Websites

1. www.khulsey.com
2. www.wiley.com

C) Major Equipments/ Instruments with Broad Specifications

Furniture- Drafting boards with stand, stools,

Drafting tools- T-square, set squares, scale box, coloring medium, French curve, pencils- HB, B, 2B, 3B, 4B, 6B, H, 2H, Eraser, Sheet container, A1, A2, Drawing sheets,

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum, 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i : 1024 × 768 pixels (XGA) Bright Link 475Wi / 485Wi : 1280 × 800 pixels (WXGA) Lens: F=1.80, Focal length: 3.71 mm. Colour reproduction: Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio: 1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down, Screen for both ceiling and wall usage. OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) up to 14 ppm Print speed. Duty cycle (monthly, A4) up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
C01	M			H				H	H		H
C02		M		H	M	M		H	H		H
C03	H		M	H				H	H		H
C04	H		M	H				H	H		H
C05	H		M	H			M	H	H		H
C06	H			H				M	H		H
C07	H		M	H				H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID).

COURSE : Primary Services. (PRS)

COURSE CODE : 6266

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
04	--	--	04	03	Max.	80	20	100	--	--	--	100
					Min.	32	--	40	--	--	--	--

1.0 RATIONALE:

The course intends to equip the students with concept and principles of Basic services. It will develop their skills in understanding the function of services and help optimise the resources such as water, electricity. It will also develop the analytical skills in designing appropriate services layout and schemes.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop knowledge and concepts of primary services
2. Use appropriate resources including optimisation
3. Design layouts for services
4. Calculate required illumination for given activity layout.
5. Choose the required lighting systems for different activities and areas.
6. Develop knowledge of basic interior services.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Apply principles of water supply, sanitation and drainage.
2. Prepare water supply and drainage layout for cooking, drinking, washing, bathing and flushing areas.
3. Identify the types of wire and wiring system.
4. Prepare electrical layout for given interior space.
5. Identify the different types of light and selection of activity based type of illumination.
6. Use basic principles of heat and ventilation.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Water Supply, Sanitation and Drainage	1a. Describe principles of Water Supply, Sanitation & Drainage 1b. List and describe various sanitary appliances. 1c. Draw various types of traps and state their functions. 1d. Prepare water supply and	1.1 Principles of Water Supply, Sanitation & Drainage 1.2 Types, Sizes & Quality of Pipes, Specials, Joints, Fittings and Fixtures for Water supply systems and drainage system 1.3 Types & Sizes of Sanitary wares such as wash hand basins, Pans, Urinals, Bidets, Water Closets, Flushing Cisterns, Bath tubs, Shower cubicles. 1.4 Cold and Hot water distribution & mixing systems using loft tanks,	26

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	<p>drainage layout for kitchen/washing area/toilet.</p> <p>1e. Sketch and explain various drainage systems.</p>	<p>pressure pumps, geysers, boilers, mixers, and diverters. Waste and Soil Disposal systems using principles of Siphoning, Anti-Siphoning, Venting. (Focus on traps)</p> <p>1.5 Distribution & Disposal (Open and Concealed) for: Cooking and Drinking- (Focus on Kitchen and Pantry areas), Washing- (Manual and Machine based.), Bathing- (Modes such as shower, pressure jet sand tubs Flushing- (Urinal, Water Closet and Toilet areas Miscellaneous- (Gardening, Indoor Fountain, Falls, Cascades), Understanding Distribution and Disposal layouts in context with appropriate gradients & Sizes, waterproofing consideration, appropriate use of specials such as joints & junctions.</p> <p>1.6 Water supply and drainage layout for cooking and drinking areas, washing areas. Bathing areas, Flushing areas, Ancillary areas, distribution and disposal for given layout with consideration of gradient Pipe sizes, water proofing with use of specials along with legend.</p>	
<p>Unit-II</p> <p>Electrification</p>	<p>2a. Differentiate single phase and three phases.</p> <p>2b. Explain Principles of Distribution, and limitations of electrification.</p> <p>2c. Explain types of wires and Wiring system.</p> <p>2d. Prepare Electrical layout for given interior space with consideration of loading Use.</p>	<p>2.1 (Single and three phases, earthling, neutral, volts, amps and wattage relation), loading requirements.</p> <p>2.2 Principles of Distribution, and limitations of electrification (leakage, fluctuations, safety, excess loading, interferences.)</p> <p>2.3 Wiring standards and specifications (Sheathing, shielding, cross-sectional area, colour coding), circuit wiring and installation systems (Open and Concealed).</p> <p>2.4 Understanding Distribution layouts in context with appropriate loading use, wire sizing, sheathing consideration and appropriate use of specials such as joints & junctions.</p> <p>2.5 Electrical layout for given interior space with consideration of loading use, specials along with legend</p>	<p>20</p>
<p>Unit-III</p> <p>Light and Lighting</p>	<p>3a. Suggest different types of light according to function and area.</p>	<p>3.1 Introduction to Light (Natural & Non-natural light, Terminology such as Illumination, Lux, Lumens, Maintenance and Utility factors, Glare)</p>	<p>12</p>

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	3b. Explain Principles of Light. 3c. Sketch and explain Incandescent, Fluorescent, vapour lamps, halides & halogen, neon light. 3d. Draw sketches of various light fittings and lighting fixtures.	Calculating the requirements according to the required levels of illumination. 3.2 Quality of light such as Incandescent, Fluorescent, vapour lamps, halides & halogen, gas-filled such as neon, argon and lasers. 3.3 Principles of Light. (Transmission, reflection, distortion, refraction, inverse law) Types of lighting- i.e. Direct and Indirect (diffused, reflected). 3.4 Types of Light fittings such as fans, Tube light fittings, Lamp fittings, Chandeliers. 3.5 Selection of activity based types of illumination such as Ambient, Task, Ascent- Focus, Information such as step lighting, signage and selection of systems of Lighting such as up, down, side and cove lighting, track lighting.	
Unit-IV Natural Heating, Ventilation and Conditioning of Air.	4a. Explain Basic principles of Heat and ventilation. 4b. Define ventilation, heat insulation, air-conditioning, humidity	4.1 Physical Human comforts- Climate based (Quality of Air, Temperature, Humidity) (Not for Examination) 4.2 Principles of Ventilation; Natural Ventilation. Transmission of Heat; Control by natural means	06
TOTAL			64

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Water Supply, Sanitation and Drainage	08	10	12	30
II	Electrification	04	08	10	22
III	Light and Lighting	06	06	04	16
IV	Natural Heating, Ventilation and Conditioning of Air.	08	04	--	12
TOTAL		26	28	26	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Prepare Water supply and drainage layout for cooking and drinking areas.
2. Prepare Electrical layout for residential area.
3. Prepare Market survey for Water supply and drainage.
4. Prepare Market survey for Electrification.
5. Collect brochures for various soil and waste appliances.
6. Draw sketches with dimensions of soil and waste appliances.
7. Collect brochures for lighting fixtures.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange expert seminar of industry person in the area of electrification and water supply and drainage.
2. Industrial visit to residential areas for electrification, water supply and drainage.
3. Arrange site visit to various sanitary showrooms.

8.0 LEARNING RESOURCES:

A) Text Books

Sr.No.	Title of Book	Author	Publication
1	Plumbing technology	F. Hall	British Library Cataloguing in Publication Data
2	Building services and equipments	Shubhangi Bhide	Rudra offset
3	Water Supply and Sanitary Engineering	H. L. Ohri	Charotar Publishing House
4	Water Supply and sanitary installations	A. C. Panchdhari	Bureau of Indian Standards, New Delhi
5	Practical Building Construction & its mgmt	Mr. Sandeep Mantri	Mantri projects & consultancy Pvt. ltd
6	Electricity for Architects	B. Raja Rao	Technical Book publisher
7	Heating, cooling, lighting Design	Norbert Lechner	Library of congress Cataloguing in Publication Data

B) Software/Learning Websites

1. www.aquantindia.com
2. www.jaquar.com
3. www.johnsonbathrooms.in
4. www.polycab.com/www.ajitpspl.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i : 1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi : 1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length : 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage. OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) up to 14 ppm Print speed. Duty cycle (monthly, A4) up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H		H		M			M	H		H
CO2	H	M	H	H	H		M	H	H	M	H
CO3		H	H		H	H	M	H	H		H
CO4	H	H	H	H	M		M	H	H		H
CO5	H	H	H		H	M	M	H	H	M	H
CO6	H				H			H	M		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Perspective projection (PPJ)

COURSE CODE : 6267

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	01	04	06	--	Max.	--	--	--	25	--	25	50
					Min.	--	--	--	10	--	10	--

1.0 RATIONALE:

This course equips the students with thorough understanding and skills of drawing perspective views that enable both, the designer and the client, to visualize the design in an effective manner.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop knowledge of graphical presentation.
2. Develop presentation skills.
3. Develop the skills of drawing perspective views.
4. Develop the visualization skills.
5. Apply scales to prepare drawings.
6. Develop rendering skills.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Prepare presentation drawings.
2. Draw and render one point perspective views of interior spaces.
3. Draw and render two point perspective views of interior spaces.
4. Sketch the designs in an effective manner.
5. Render drawings in various mediums.
6. Draw perspective views to different scales.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Principles of Perspective	1a. Define the terms used in perspectives. 1b. Describe one point perspective. 1c. Describe two point perspective	1.1 Basics of perspectives <ul style="list-style-type: none"> ▪ Study of picture plane ▪ Horizon ▪ Eye level ▪ Measuring point ▪ Standing point ▪ Vanishing lines and point ▪ One point perspectives ▪ Two point perspectives ▪ Three point perspective (only to be explained as variation of converging points.(Not for examination) 	04
Unit-II	2a. Draw and render one point perspective views.	2 2.1 One point perspective assuming Picture plane in front of the object.	06

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Techniques of Drawing One Point Perspective		2.2 Picture plane behind the object. 2.3 Picture plane in between the object. (to be explained as combination of the above assessments)	
Unit-III Techniques of Drawing Two Point Perspective	3a. Draw and render two point perspective views.	3 Two point perspective assuming 3.1 Picture plane in front of the object. 3.2 Picture plane behind the object. 3.3 Picture plane in between the object. (to be explained as combination of the above assessments)	06
		TOTAL	16

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

***Note:** Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain*

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
		Draw perspective of a room with relevant block furniture for the following positions of the picture plane.	
1	II	One point perspective picture plane in front of the room (free hand)	04
2	II	One point perspective picture plane in front of the room (using scale)	04
3	II	One point perspective picture plane in between the room (free hand)	04
4	II	One point perspective picture plane in between the room (using scale)	06
5	II	One point perspective picture plane behind the room (free hand)	04
6	II	One point perspective picture plane behind the room (using scale)	06
7	II	Render any one of the above views using best rendering medium skills acquired by the individual student.	04
8	III	Two point perspective picture plane in front of the room (free hand)	04
9	III	Two point perspective picture plane in front of the room (using scale)	04
10	III	Two point perspective picture plane in between the room (free hand)	04
11	III	Two point perspective picture plane in between the room (using scale)	06
12	III	Two point perspective picture plane behind the room (free hand)	04
13	III	Two point perspective picture plane behind the room (using scale)	06
14	III	Render any one of the above views using best rendering medium skills acquired by the individual student.	04
TOTAL			64

6.0 ASSIGNMENTS

Sr. No.	Unit No.	Tutorial Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	I	Principles of perspective	02
2	II	Techniques of drawing One point perspective	
		Picture plane in front of the object.	03
		Picture plane behind the object.	02
		Picture plane in between the object.	02
3	III	Techniques of drawing two point perspective	
		Picture plane in front of the object.	03
		Picture plane behind the object.	02
		Picture plane in between the object.	02
TOTAL			16

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect 20 pictures of 3D furniture objects.
2. Click 10 photographs of 3D objects in different perspectives.
3. Draw (minimum 10) 3D objects and render it in any medium.
4. Sketch 3D furniture objects.
5. Collect 3D views of interior spaces.
6. Visualize and sketch views of objects and spaces.
7. Search software's related to sketching/drawing.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange expert seminar/demo of industry person in the area of sketching professional perspective views.
2. Arrange workshop on perspective drawings.
3. Show animated videos of three dimensional objects and views.
4. Introduce computer aided software's.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Interior Perspectives to Architectural Designs	Graphic Shaw	Graphic Shaw
2	A Text Book of perspective sand graphics	Shankar Mulik	Allied Pub. Bombay
3	The Thames and Hudson Manual of Rendering with pen and ink	Robert W. Gill	Thames & Hudson Ltd. London
4	Perspective Drawing	F. D. K. Ching	--

B) Software/Learning Websites

1. www.wikihow.com
2. [https://en.wikipedia.org/wiki/Perspective_\(graphical\)](https://en.wikipedia.org/wiki/Perspective_(graphical))

C) Major Equipments/ Instruments with Broad Specifications

Furniture- Drafting boards with stand, stools,
 Drafting tools- T-square, set squares, scale box, coloring medium, French curve, pencils- HB, B, 2B, 3B, 4B, 6B, H, 2H, Eraser, container, A1, A2, Drawing sheets,

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i : 1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi : 1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length : 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage. OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) up to 14 ppm Print speed. Duty cycle (monthly, A4) up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H			H				H	H		H
CO2	H			H				H	H		H
CO3	H			H				H	H		H
CO4	H			H	M			H	H		H
CO5				M				H	H		H
CO6	H			H				H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : 2D and 3D CADD (CDD)

COURSE CODE : 6268

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	04	05	--	Max.	--	--	--	50	--	50	100
					Min.	--	--	--	20	--	20	--

1.0 RATIONALE:

This course intends the student to understand the importance of 2D and 3D CAD for preparing and exchanging drawings. The use of CADD software will increase productivity and lessen rework of drawings thereby saving time.

The students will be able to generate a realistic view of their design. Also, communicating their ideas becomes very easy and effective.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Understand the importance of 2D & 3D CAD for preparing and exchanging drawings.
2. Use CADD software.
3. Increase productivity and lessen rework of drawings thereby saving time.
4. Use basic CAD command to develop 2D & 3D drawings.
5. Use CAD commands for edit/modification of existing drawings as per needs and suggestions
6. Use Plotting and printing techniques.
7. Use 3-D interface.
8. Use basic modeling techniques in 3D CADD.
9. Convert the two dimensional drawings of plans and elevations of a building in to the three dimensional models by applying the various materials inside it and adding light effects to the building models in 3 dimensioning.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Apply basic CAD commands to develop 2D & 3D drawings.
2. Execute CAD commands by selecting from menus, tool bars and entering Commands on command line.
3. Prepare plan, elevations, and cross sections of furniture objects.
4. Prepare rendered presentation drawings of furniture objects.
5. Prepare interior layout plans, elevations, cross sections and 3D views of the same.
6. Apply layers in interior planning and its importance while presentation.
7. Apply materials, maps, lights, camera & rendering.
8. Print the drawing.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Introduction to Computer Interface	1a. Create a file and a folder. 1b. Create a file and save it in a folder.	1.1 Windows interface, left and right click significance. 1.2 Explorer- creating/deleting folders, saving in folders, 1.3 Managing files creating icons. 1.4 Introduction to drawing and rendering software.	02
Unit-II Setting up Drawings	2a. List the uses of CADD. 2b. Name zoom commands 2c. Describe Layer manager and standard Status bar.	2.1 Introduction to 2D CADD interface. 2.2 Units. 2.3 Zoom commands 2.4 Layer manager and standard Status bar.	02
Unit-III 2D Drawings Techniques	3a. list, name, apply the draw commands 3b. define draw commands 3c. Make and insert blocks of interior objects. 3d. Apply hatch command to the given drawing. 3e. List, name, apply the modify commands. 3f. List the shortcut keys. 3g. Apply various dimension styles. 3h. Apply various text styles. 3i. Prepare typical Drawings using Different Layers	3.1 Draw toolbar ▪ Line- Line, Construction Line, Polyline, Polygon, Arc, Boundary, Revision Cloud ▪ Shape-Polygon, Rectangle, Triangle, Circle, Ellipse, Hexagon. 3.2 Modify toolbar: Erase, Copy, Mirror, Offset, Array, Move, Rotate, Scale, Stretch, Hatch, Lengthen, Trim, Extend, Break, Chamfer, Fillet, Explode, make a block, insert block, Table, multiline text. 3.3 Inquiry toolbar- distance, list, area. 3.4 Dimensioning Commands- liner, angular, diameter, Continue, Angular. 3.5 Creating text using text style, text edit. ▪ Formatting text and dimension. 3.6 Application of LAYER command in Interior Design. ▪ Layer command with its all sub commands, Line type, Color, line weight, on/off, freeze, lock/unlock.	02
Unit-IV Introduction to 3D Interface	4a. Describe the importance of 4b. 3D-interface.	4.1 Compatibility of units with other CAD software. 4.2 Concept of UCS and WCS	02
Unit-V Main Toolbar and 3D Modelling Techniques	5a. List and apply various primitives 5b. Draw the solid commands.	5.1 Solid command- sphere, box, cylinder, cone, wedge, pyramid.	02

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-VI Materials and Mapping	6a. Create new materials and apply them.	6.1 Standard material 6.2 Two sided materials, multi sub object material 6.3 Creating new materials, UVW mapping	02
Unit-VII Lights and Camera	7a. List the types of light. 7b. State the importance of applying lights. 7c. List the types of camera. 7d. State the importance of camera.	7.1 Types of light 7.2 Types of camera	02
Unit-VIII Rendering	8a. Describe the types of rendering.	8.1 Types of rendering, Saving rendered image	02
TOTAL			16

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	II	Use of zoom, pan, view, command in a drawing and setting drawing limits.	02
2	III	Draw basic forms and shapes in CAD (Rectangle, triangle, Circle, Ellipse, pentagon, hexagon)	04
3	III	Creating plans of various objects and use of modification tools such as erase, copy, move, scale, rotate, trim, extend, array, offset, mirror, break and stretch	04
4	III	Creating text using text style, text edit, line type, and weight	04
5	III	Draft plan and elevations of a T.W table.	04
6	III	Draft plan, sections and elevations of a <ul style="list-style-type: none"> ▪ Double bed with storage below. ▪ Sofa set ▪ Wardrobe ▪ T.V unit 	04
7	III	Make and insert blocks of 3 seater sofa, 2 seater sofa, 2 to 6 sitter dining table, centre table, refrigerator, cooking gas, W.C., Kitchen sink, etc. Copy furniture objects from design centre and make use of scale command.	04
8	III	Draft plan, sectional elevations of a 2BHK Flat	06
9	III	Render the plan, sectional elevations of a 2 BHK Flat.	04

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
10	V	Draw 2D basic geometrical forms in 3D.	04
11	VI	Apply materials to the previously modelled furniture objects. (6 to 8 objects).	04
12	VI & VII	Prepare model interiors of a living room, apply materials and assign lights and camera.	04
13	VII	Applying rendering effects to 3D objects and save the images.	04
14	I to VIII	Prepare a completely formatted portfolio of a design project containing	
		▪ Furnished plans	04
		▪ sections	04
		▪ 3D views.	04
TOTAL			64

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Acquire basic knowledge of computer applications.
2. Collect information for software's used in drawing and drafting
3. Collection of Auto CADD blocks.
4. Collect plans, elevations and sections of interior furniture objects.
5. Collect information of hatched symbols used for different objects like brick masonry, stone masonry, R.C.C, glass, timber, flooring, steel.
6. Collect samples of blocks used in landscaping.
7. Collect sample presentation of Interior layout plans.
8. Visit to architect/civil engineering/interior design firm for understating the CAD and its applications and study of typical drawings prepared by AutoCAD
9. Collect different types of interior drawings in hard copy from architects, designers, builders for preparing the same using CAD software.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange expert seminar of industry person in the area of computer aided software.
2. Use projector to explain and demonstrate the use of AutoCAD commands.
3. Show presentation drawings to students on projector.
4. Collect and provide different drawings prepared through AutoCAD and will show to students to motivate to prepare such type of Drawings.
5. Lecture Method, Use of teaching aids, Demonstrations and Expert Lectures.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Mastering Auto cad (Latest version)	George Omura	BPB publication
2	Auto cad for Interior Design and space planning using Auto cad 2005	Beverly L. Kirkpatric & James M. Kirkpatric	Pearson Education Inc,
3	AutoCAD (Latest version)	Santhi Marappan & others	Reference guide CADD centre
4	Auto Cad 2005 Instant Reference	George Omura B. Robert Callori	BPB Publications
5	Auto Cad 2007 L T	Fred Bery	Wiley
6	Working With AutoCAD	Ajit Singh	Tata McGraw Hills
7	Auto CAD 2007 for Engineering & Designing	Sham Titkoo	Dramtas Press, 19/A, Ansari Road, Dariya Ganj, New Delhi

B) Software/Learning Websites

1. <http://www.apache.org>
2. <https://www.autocad360.com/>
3. www.autodesk.in
4. www.cadcorner.ca
5. www.autodesk.com
6. www.cadtutor.net
7. Authentic AutoCAD version 2006 or Higher can be down loaded from AICTE website
8. Autodesk web site

C) Major Equipments/ Instruments with Broad Specifications

1. Auto CADD Software.

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H			H				H	H		H
CO2				H				H	H		H
CO3	H		M	H				H	H		H
CO4	H			H				H	H		H
CO5	H		H	H				H	H		H
CO6	H			H			M	H	H	H	H
CO7	H			H				H	H		H
CO8	H			H	M	M		H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration

COURSE : Interior Design (IND)

COURSE CODE : 6269

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
02	--	06	08	06	Max.	80	20	100	--	25	25	150
					Min.	32	--	40	--	10	10	--

1.0 RATIONALE:

The course intends to apply Basic Design taught in first semester. It will also develop the skills in planning of residential and small commercial spaces with appropriate usage of materials, Basic Construction and Primary services required for the design project.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Design and plan residential and small commercial spaces.
2. Develop skills in planning of residential and small commercial spaces.
3. Identify and use appropriate materials in design.
4. Develop skills in primary services required for the project.
5. Identify and list the principles of design used in given interior layout.
6. Develop manual drafting skills.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Design and Draft interiors for small scale:
 - a. Residential premises
 - b. Commercial premises
2. Draw plans, sectional elevations and perspective views for the interior work
3. Prepare and present report on case study.
4. Prepare a design brief for small scale Residential and Commercial premises.
5. Draft the drawings to the scale.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Residential project (up to 90 sq.mt area)	1a. Describe Instructions regarding case studies, observations & analysis	1. Residential Design 1.1 Relevant aspects of case studies, observation skills and analysis report.	04
	1b. Describe design brief	1.2 Key information related to the project, concept, theme and zoning.	04
	1c. Describe relevant aspects about Basic design, Materials, Construction, and Services.	1.3 Design elements, principals of design, and specifications of material, construction details of interiors.	04
	1d. Describe requirements of project as per client's expectations.	1.4 Design Brief and project requirements.	04
Unit-II Commercial Project (up to 100 sq.mt area)	2a. Describe Instructions regarding case studies, observations & analysis	1. Commercial Design 2.1 Relevant aspects of case studies, observation skills and analysis report.	04
	2b. Describe design brief	2.2 Key information related to the project, concept, theme and zoning.	04
	2c. Describe relevant aspects about Basic design, Materials, Construction, and Services.	2.3 Design elements, principles of design, and specifications of material, construction details of interiors.	04
	2d. Describe requirements of project as per client's expectations.	2.4 Design brief and project requirements.	04
TOTAL			32

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I & II	Residential project (up to 75 sq.mt area) and Commercial Project (up to 85 sq.mt area)	10	30	40	80
TOTAL		10	30	40	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping

matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
	I	Residential project	
1		Draft Measurement Plan	02
2		Prepare design brief and requirement sheet	02
3		Draw a bubble diagram and zoning of living room	02
4		Draft a Furniture layout of living room plan and rendered it with any media	04
5		Draft any two sectional elevation of living room and rendered it any media	04
6		Draw any two views of living room with rendering	04
7		Draw a bubble diagram and zoning of Kitchen and dining	02
8		Draft a Furniture layout of Kitchen and dining plan and rendered it with any media	04
9		Draft any two sectional elevation of kitchen and Dining and rendered it with any media	04
10		Draw any two views of kitchen and dining with rendering	04
11		Draw a bubble diagram and zoning of Master bedroom	02
12		Draft a Furniture layout of Master Bedroom plan and rendered it with any media	04
13		Draft any two sectional elevation of Master Bedroom and rendered it with any media	04
14		Draw any two views of Master Bedroom with rendering	04
15		Draw a bubble diagram and zoning of Children/Grandparents bedroom	02
16		Draft a Furniture layout of Children/ Grandparents Bedroom plan and rendered it with any media	04
17		Draft any two sectional elevation of Children/ Grandparents Bedroom and rendered it with any media	04
18		Draw any two views of Children/ Grandparents Bedroom with rendering	04
2	II	Commercial project- coffee shop, boutique, fast food Centre, clinic, travel agency office.	
19		Draft Measurement Plan	02
20		Prepare design brief and requirement sheet	02
21		Draw a bubble diagram and zoning	04
22		Draft a Furniture layout plan and render it with any media	12
23		Draft any two sectional elevations and render it with any media	10
24		Draw any two perspective views with rendering	06
TOTAL			96

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect market rates and samples for various interior materials.
2. Collect market rates and samples for various types of floorings
3. Collect market rates for various furniture items.
4. Collect market rates for various paints.
5. Collect market rates and samples for various ceiling material.
6. Prepare case study reports on residential and commercial interiors.
7. Collect architectural interior plans of residential and commercial premises.
8. Collect sketches and designs of various furniture items.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange site visits at Residential and Commercial spaces.
2. Arrange expert lecture/seminar of industry person on residential and commercial interiors.
3. Introduce computer aided software's related to interior design.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Living large in small spaces	Thames & Hudson	Thames & Hudson
2	New small homes	Aurora Cuito	Loft Publications. S. L.
3	The Ultimate Interior designer	Ruth Prett	Ward Lock
4	Making the most of small spaces	Stephen Crafti	Images Publishing group. Pvt. Ltd
5	Studio Apartments	James Grayson Trulove	James Grayson Trulove
6	Time Saver Standards for Housing and Residential Development	Joseph De Chiara, Julius Panero, Martin Zelink	McGraw-Hill, Inc.

B) Software/Learning Websites

1. <http://designerspeak.com>
2. <http://visual.ly/interior-design>
3. www.homestyler.com
4. www.roomsketcher.com
5. www.smartdraw.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H		M	H	H		M	H	H		H
CO2	H		M	H			M	H	H		H
CO3	H	M	M	H				H	H		H
CO4	M			M	M			H	M		H
CO5	H		M	H			M	H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration

COURSE : Basic Construction Techniques(BCT)

COURSE CODE : 6270

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme			Examination Scheme									
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
03	--	04	07	03	Max.	80	20	100	--	--	50	150
					Min.	32	--	40	--	--	20	--

1.0 RATIONALE:

The course intends to equip the students with thorough knowledge of simple structure methods of assembly and joinery for understanding the construct simple furniture items, components of building like windows, doors and floors often used and handled by the designer in designing Interior spaces.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Describe types of structures, their systems, elements & fundamentals of load transfer.
2. Select appropriate teakwood joinery while designing furniture items
3. Describe limitations of joinery
4. Choose type of doors & windows along with different materials used.
5. Describe different techniques of laying various floor finishes, erecting & installing the structural floor.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Sketch different types of building structures and elements of building.
2. Draw bonds used in brick masonry and stone masonry, lintels, arches and basic construction details.
3. List and explain with sketches different types of flooring and methods of laying.
4. Sketch different teakwood joinery details and plywood joints.
5. Draft different type of doors and windows explaining their modes of operation.
6. Draft simple framed teakwood and plywood furniture items.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Structures & Building Components	1a. Describe building structure 1b. Draw and describe Building components and elements of Foundation. 1c. Draw and describe Brick bonds in brick Masonry, stone Masonry 1d. Sketch and explain Types and uses of Lintels and arches. 1e. Describe concept and technique of structural framing for different floors. 1f. Draw and describe Types of flooring and Methods of laying.	1.1 Structures existing in Nature Manmade structures Load bearing, Framed, Tensile, Shell Structures 1.2 Components & Elements of Building Foundations, Footings, Columns, Beams, Plinth, Slabs, floors, structural and non-structural walls, fenestrations (Doors, Windows, Ventilators and openings), Lintels, Arches, Staircase. 1.3 Bricks- Study types of Bricks : Bricks Masonry- Types of Brick Bonds in 1/2 brick thick, 1 brick thick only, Header Bond, Stretcher Bond, English & Flemish Bonds Brick Piers & Foundation Stone. Masonry- Basic Stone Masonry & Foundation. Random Rubble, polygonal, Dry Rubble, Foundations 1.4 Lintels & Arches. Lintels- Types of Lintels (Wooden, Steel, R.C.C.) R.C.C. Weather-shed (Different types of Chajjas & awnings) Arches- Types of Arches, Classification according to centre, shape. 1.5 Floors: Concept and Technique of Structural framing for Loft, Mezzanine, Floors, Cavity & False Floor. 1.6 Floorings: Methods (Concepts, Specifications, Provisions, Care, Process) of laying natural & artificial materials on existing slab, floor and flooring. Tiles- Mosaic, Ceramic, Stone (Granite, Marble) Tile on Tile, Junctions, Patterns, Inlay.	12
Unit-II Joinery	2a. Draw teakwood joinery Details. 2b. Draw Plywood joinery Details.	2.1 Study of material specific limitations of joinery. 2.2 Types of Joints (Lengthening, Widening Bearing Framing) 2.3 Plywood Joints- Types of Plywood joints	06

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-III Doors & Windows	3a. Draw and design teakwood, MS, stone frames and casing of Door and window. 3b. Draw and describe Different types of Doors. 3c. Draw and describe Different types of Windows.	3.1 Frames & Casing TW, MS, Stone: Door & Window Frame, types, erecting, terms involved 3.2 Doors : Modes of operation, types, Panelled door, Flush door, Glazed door Folding door, Sliding door, sliding cum folding door, pivoted, Misc. doors, miscellaneous doors such as collapsible gate, safety doors, rolling shutter. 3.3 Windows: Modes of operation and types, TW Window, MS Window, Aluminium window, Louvered window, Ventilators/ Fan lights, Protective Grills.	18
Unit-IV Simple Furniture Items	4a. draw different teakwood furniture 4b. design and draft simple frame plywood furniture	4.1 TW Furniture: Simple framed furniture items (stool, chair and table) 4.2 Plywood Furniture: Simple Items (stool, chair, table.)	12
TOTAL			48

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Structures & Building Components	04	08	20	32
II	Joinery	02	02	04	08
III	Doors & Windows	04	08	16	28
IV	Simple Furniture Items	02	02	8	12
TOTAL		12	20	48	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
	I	Structures & Building Components (To be carried out in a journal-form on large size square grid pad or drawn to scale on A1 size drawing) Prepare in graphical form using any material-media such as pictures, photographs, cuttings, etc. or draw neat and proportionate sketches to explain:	
1		Types of structure, components & elements of built structure.	06
2		Brick & stone masonry, openings & projections	06
3		Lintels, arches, jambs, frames & casings	06
	II	Joinery	
4		Draft joinery- Lengthening such as Simple scarf, Butt, Lap, Tabled. Draft joinery- Widening such as Butt, Rebate, and Tongue & Groove. Draft joinery- Bearing such as Housing, cross-lap, Halving, Dovetail & Rabbet. Draft joinery- Framing such as Tenon & Mortise, Dovetail.	04
	III	Doors & Windows (Prepare to-the-scale drawings consisting of plans, elevations, sections, details, etc.)	
5		Draft Given a key plan of any Interior Premises- Flooring layout consisting of patterns by varying different materials in different areas showing details of junctions.	04
6		Draft Panelled Door- details of joinery, details of panels, mouldings	06
7		Draft Sliding- Folding doors: Details of fittings, operations and installation methods	06
8		Draft TW Casement Window: Details of joinery, details of mouldings.	06
9		Draft Pivoted TW Sash Window: Details of joinery, mouldings, sash bars, sash frame, beadings	06
10		Draft Aluminium sliding windows (2, 3, and 4 track): Details of fittings, sections available, and installation methods. Different provisions to be made for Mosquito net, Exhaust fans, A.C.	06
	IV	Simple Furniture Items	
11		Design and draft wooden furniture ANY ONE (Stool, Chair, Divan, and settee.)	04
12		Design and draft plywood furniture ANY ONE (side table, puffy.)	04
		TOTAL	64

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Prepare charts on different interior construction material
2. Collect market rates of interior materials.
3. Collect samples of interior materials.
4. Sketch different furniture items.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange visits at different interior construction sites.
2. Arrange expert lecture/seminar of industry person on interior construction techniques.
3. Introduce computer aided software's related to drafting.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	The construction of Building Vol. I	R. Barry	ELBS Publication
2	The construction of Building Vol. II	R. Barry	ELBS Publication
3	The construction of Building Vol. IV	R. Barry	ELBS Publication
4	Text book on Building	S. P. Arora & Bindra	Dhanpat Rai & Sons
5	Building Construction	Rangwala S. C.	Charottar Pub, Anand
6	Building construction	B. C. Punmia	Laxmo Publication
7	Building construction	Sushil Kumar	Laxmo Publication
8	Building Construction I	Francis D. K. Ching	Illustrated Van Norstrand
9	Architects' Working Detail Vol. I to V	D. A. C. A. Boyne	The Architectural Press Ltd. London

B) Software/Learning Websites

1. www.basicconstructionco.com
2. www.understandconstruction.com
3. www.basiccarpentrytechniques.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H			H				H	H		M
CO2	H			H				H	H		H
CO3	H	H	H	H	M	M		H	H		H
CO4			H	H	M			H	H		H
CO5	H		H	H				H	H		H
CO6	H	H	H	H				H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in CE / ME / PS / EE / IF / CM / EL / AE / DD / ID
COURSE : Environmental Studies (EVS) **COURSE CODE** : 6302

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
--	--	02	02	--	Max.	--	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0 RATIONALE:

Environment essentially comprises of our living ambience, which gives us the zest and verve in all our activities. The turn of the twentieth century saw the gradual onset of its degradation by our callous deeds without any concern for the well being of our surrounding we are today facing a grave environmental crisis.

It is therefore necessary to study environmental issues to realize how human activities affect the environment and what could be possible remedies or precautions which need to be taken to protect the environment.

The curriculum covers the aspects about environment such as Environment and Ecology, Environmental impacts on human activities, Water resources and water quality, Mineral resources and mining, Forests, etc.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Understand and realize nature of the environment, its components, and inter-relationship between man and environment.
2. Understand the relevance and importance of the natural resources in the sustainability of life on earth and living standard.
3. Comprehend the importance of ecosystem and biodiversity.
4. Identify different types of environmental pollution and control measures.
5. Correlate the exploitation and utilization of conventional and non-conventional resources.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Explain uses of resources, their over exploitation and importance for environment
2. Describe major ecosystem
3. Suggest measures for conservation of biodiversity
4. Identify measures for prevention of environmental pollution
5. Describe methods of water management
6. Identify effects of Climate Change, Global warming, Acid rain and Ozone Layer
7. Explain Concept of Carbon Credits
8. State important provisions of acts related to environment

4.0 COURSE DETAILS:

There are no separate classes for theory. The relevant theory has to be discussed before the practical during the practical sessions.

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics
Unit-I Introduction to Environmental Studies	1a. Define the terms related to Environmental Studies 1b. State importance of awareness about environment in general public	1.1 Definition, Scope and Importance of the environmental studies 1.2 Need for creating public awareness about environmental issues
Unit-II Natural Resources	2a. Define natural resources 2b. Identify uses, their overexploitation and their importance for environment	2.1 Uses of natural resources, over exploitation of resources and their importance for environment 2.2 Renewable and Non-renewable resources 2.3 Forest Resources 2.4 Water Resources 2.5 Mineral Resource 2.6 Food Resources
Unit-III Ecosystems	3a. Define Ecosystem 3b. List functions of ecosystem 3c. Describe major ecosystem in world	3.1 Concept of Ecosystem 3.2 Structure and functions of ecosystem 3.3 Major ecosystems in the world
Unit-IV Biodiversity and its Conservation	4a. Define biodiversity 4b. State levels of biodiversity 4c. Suggest measurers for conservation of biodiversity	4.1 Definition of Biodiversity 4.2 Levels of biodiversity 4.3 Threats to biodiversity 4.4 Conservation of biodiversity
Unit-V Environmental Pollution	5a. Classify different pollution 5b. Enlist sources of pollution 5c. State effect of pollution 5d. Identify measures for prevention of pollution	5.1 Definition, Classification, sources, effects, and prevention of <ul style="list-style-type: none"> • Air pollution • Water Pollution • Soil Pollution • Noise Pollution 5.2 E- waste management
Unit-VI Social Issues and Environment	6a. Describe methods of water management 6b. Identify effects of Climate Change, Global warming, Acid rain and Ozone Layer 6c. Explain Concept of Carbon Credits	6.1 Concept of sustainable development 6.2 Water conservation, Watershed management, Rain water harvesting: Definition, Methods and Benefits 6.3 Climate Change, Global warming, Acid rain, Ozone Layer Depletion, 6.4 Concept of Carbon Credits and its advantages
Unit-VII Environmental Protection	7a. State important provisions of acts related to environment	7.1 Importance of the following acts and their provisions: <ul style="list-style-type: none"> • Environmental Protection Act • Air (Prevention and Control of Pollution) Act • Water (Prevention and Control of Pollution) Act • Wildlife Protection Act • Forest Conservation Act • Population Growth: Aspects,

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics
		importance and effect on <ul style="list-style-type: none"> • environment • Human Health and Human Rights • ISO 14000

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Not Applicable

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignments/tasks should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the competencies.

***Note:** Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in a common list at the beginning of curriculum document for this programme. Faculty should refer to that common list and should ensure that students also acquire those Programme Outcomes/Course Outcomes related to affective domain.*

Sr. No.	Unit No.	Practical Exercises (Any Five Visits and Five Reports/Assignments)	Approx. Hrs. required
1	I	Report on Importance and public awareness of Environmental Studies.	04
2	II	Report on Use of natural resources and overexploitation of Resources	04
3	II	Visit /Video Demonstration to Renewable / Non-renewable (wind mill, hydropower station, thermal power station)/ resources of energy.	04
4	II	Visit to polyhouse and writing report on its Effects on agriculture food production.	04
5	III	Assignment/Report on structure and functions of ecosystem.	04
6	IV	Visit to a local area to environmental assets such as river / forest / grassland / hill / mountain and writing report on it.	04
7	V	Group discussion on Environmental Pollution (Air pollution/Water pollution/Soil pollution/Noise pollution/E-waste)	04
8	V	Visit to study recycling of plastic and writing a report on it.	04
9	VI	Visit to Water conservation site / Watershed management site / Rain water harvesting site and writing a report on it.	04
10	VI	Visit to study organic farming/Vermiculture/biogas plant and writing a report on it.	04
11	VI	Video Demonstration /Expert Lecture Report on Climate Change and Global warming	04
12	VII	Write important provisions of Acts related to Environment/ Air (Prevention and Control of Pollution) Act/Water (Prevention and Control of Pollution) Act/ Wildlife Protection Act/ Forest Conservation Act	04
TOTAL			48

Note: Any Four Visits/ Video Demonstration and Four Reports/Assignments from above list to be conducted.

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect articles regarding Global Warming, Climate Change
2. Collect information regarding current techniques, materials, in environmental system.
3. Tree plantation and maintenance of trees in the Campus.
4. Cleanliness initiative (Swachhata Abhiyan)

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Course Video
2. Expert Lectures

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Environmental Studies	Erach Bharucha	Universities Press (India) Private Ltd, Hyderabad
2	Environmental Studies	Dr. Suresh K Dhameja	S K Kataria & Sons New Delhi
3	Basics of Environmental Studies	U K Khare	Tata McGraw Hill

B) Software/Learning Websites

Not Applicable

C) Major Equipments/ Instruments with Broad Specifications

Not Applicable

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1		M			M	H					M
CO2		M			M	H					M
CO3		M	M		M	H			M		M
CO4		M		M	M	H		M		M	M
CO5		M			M	H					M
CO6		M			M	H	M				M
CO7		M			M	H					M
CO8		M			M	H					M

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in CE / ME / PS / EE / IF / CM / EL / AE / DD / ID

COURSE : Entrepreneurship Development (EDP)

COURSE CODE : 6309

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	02	03	--	Max.	--	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0 RATIONALE:

Globalization, liberalization & privatization along with revolution in Information Technology, have thrown up new opportunities that are transforming lives of the masses. On the global scenario we have abundant physical and human resources which emphasizes the importance and need of entrepreneurship. Talented and enterprising personalities are exploring such opportunities & translating opportunities into business ventures such as- BPO, Contract Manufacturing, Trading, Service sectors etc. The student community also needs to explore the emerging opportunities. It is therefore necessary to inculcate the entrepreneurial values during their educational tenure. This will help the younger generation in changing their attitude and take the challenging growth oriented tasks instead of waiting for white-collar jobs. This course will help in developing the awareness and interest in entrepreneurship and create employment for others.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Identify entrepreneurial opportunity.
2. Develop entrepreneurial personality, skills, values and attitude.
3. Analyze business ideas- project selection.
4. Develop awareness about enterprise management.
5. Take help of support systems like banks, Government, DIC, etc.
6. Prepare preliminary project report.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Develop Entrepreneurial skill by brainstorming games, SWOT analysis, Risk taking games
2. Collect information by Visiting to DIC and Nationalized Banks
3. Interview of successful entrepreneur
4. Learn the success stories from successful entrepreneur.
5. Select product after market survey for product comparison, specifications and feasibility study
6. Prepare preliminary project report

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Entrepreneurship, Creativity and Opportunities	1a. Conduct self analysis 1b. Overview of Entrepreneurship 1c. Generating business idea	1.1 Concept, Classification & Characteristics of an Entrepreneur 1.2 Creativity and Risk taking. 1.3 Concept of Creativity, brainstorming Risk Situation, Types of risk & risk takers.	04

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	1d. Search business opportunities	1.4 Trade Related opportunities 1.5 Business Idea-Methods and techniques to generate business idea. 1.6 Transforming Ideas in to opportunities 1.7 SWOT Analysis 1.8 Scanning Business Environment	
Unit-II Business Terminology, Information and Support Systems	2a. Understand Classification of business sectors 2b. Acquiring help from support systems 2c. Planning of business activities	2.1 Types of business and industries, forms of ownership, Franchisee, Export, Network/Multilevel Marketing 2.2 Sources of Information. Information related to project, support system, procedures and formalities 2.3 Support Systems • Small Scale Business Planning, Requirements. • Statutory Requirements and Agencies. • Taxes and Acts	02
Unit-III Market Assessment	3a. Conducting Market survey 3b. Selection of product	3.1 Marketing- Concept and Importance 3.2 Market Identification, Survey Key components 3.3 Market Assessment	02
Unit-IV Business Finance	4a. Understanding terminology of finance 4b. Search and analyse sources of finance 4c. Financial ratio and profitability study	4.1 Cost of Project 4.2 Sources of Finance 4.3 Assessment of working capital 4.4 Product costing 4.5 Profitability 4.6 Break Even Analysis 4.7 Financial Ratios and Significance 4.8 Various govt. /bank schemes of finance (long term and short term)	04
Unit-V Business Plan and Project Appraisal	5a. Prepare a project report 5b. Conduct feasibility study	5.1 Preliminary project report preparation. 5.2 Project Appraisal & Selection Techniques • Meaning and definition • Technical, Economic feasibility • Cost benefit Analysis • Checklist	04
		TOTAL	16

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Not Applicable

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignments/tasks should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the competencies.

*Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in a common list at the beginning of curriculum document for this programme. Faculty should refer to that common list and should ensure that students also acquire those Programme Outcomes/Course Outcomes related to affective domain.*

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Hours
1	I	Entrepreneurship Awareness- Who am I?/ EOI/ Microlab Exercise	04
2	I	Creativity Exercises/games	02
3	I	Risk taking Exercises/games	02
4	II	Brainstorming/group discussion/problem solving exercises	04
5	III	Business Games and Related Exercises	04
6	II	Interview of an entrepreneur	02
7	IV	Event/task/activity management-group of 4-6 students will work together	04
		AND/OR	
1 to 7	I-IV	3 days Achievement Motivation Training workshop /Entrepreneurship Awareness Program	22
8	V	Visit to DIC/Bank/MSSIDC/MIDC/MPCB/Industry	04
9	V	Prepare a preliminary project report and study its feasibility	06
		TOTAL	32

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Assess yourself- are you an entrepreneur? (Self Analysis)
2. Report on
 - Interview of successful entrepreneurs (minimum two)
 - Interaction with the support systems
 - Visit to small scale industry
3. Product survey- select one product and collect all it's related information i.e. specification, price, manufacturer from at least three suppliers/ manufacturers
4. Prepare list of identified opportunities

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Conduct 3 days awareness camp for entrepreneurship by professional bodies
2. Arrange a visit to SSI/DIC
3. Arrange Interview / Expert lecture of an entrepreneur

9.0 LEARNING RESOURCES:

A) Books

SN	Title of Book	Author	Publication	
1	Entrepreneurship Development	E. Gorden K. Natrajan	Himalaya Publishing, Mumbai	
2	Entrepreneurship Development	Colombo plan staff college	Tata McGraw Hill Publishing Co. Ltd. New Delhi.	
3	A Manual on How to Prepare a Project Report	J. B. Patel D. G. Allampally	EDI STUDY MATERIAL Ahmadabad	
4	A Manual on Business Opportunity Identification & Selection	J. B. Patel S. S. Modi		
5	National Directory of Entrepreneur Motivator & Resource Persons.	S. B. Sareen H. Anil Kumar		
6	A Handbook of New Entrepreneurs	P. C. Jain		
7	The Seven Business Crisis & How to Beat Them.	V. G. Patel		
8	Entrepreneurship Development of Small Business Enterprises	Poornima M. Charantimath		Pearson Education, New Delhi
9	Entrepreneurship Development	Vasant Desai		Himalaya Publishing, Mumbai
10	Entrepreneurship Theory and Practice	J. S. Saini B. S. Rathore	Wheeler Publisher, New Delhi	
11	Entrepreneurship Development	--	TTTI, Bhopal / Chandigarh	
12	Entrepreneurship Management	Aruna Kaulgad	Vikas Publication	

B) Software/Learning Websites

Websites-

1. <http://www.ediindia.ac.in>
2. <http://www.dcmsme.gov.in/>
3. <http://www.udyogaadhaar.gov.in>
4. www.smallindustryindia.com
5. www.sidbi.com
6. www.tifac.org.in

C) Video Cassettes /CDs

Sr.No.	SUBJECT	SOURCE
1	Five success Stories of First Generation Entrepreneurs	EDI STUDY MATERIAL Ahmadabad (Near Village Bhat, Via Ahmadabad Airport & Indira Bridge), P.O. Bhat 382428, Gujarat, India P.H. (079) 3969163, 3969153 E-mail : ediindia@sancharnet.in olpe@ediindia.org Website : http://www.ediindia.org
2	Assessing Entrepreneurial Competencies	
3	Business Opportunity Selection and Guidance	
4	Planning for completion & Growth	
5	Problem solving-An Entrepreneur skill	
6	Chhoo Lenge Aasman	
7	Creativity	

D) Major Equipments/ Instruments with Broad Specifications

Not applicable

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1							M	H			M
CO2					M		M	H	H	M	H
CO3					M		M		H	M	M
CO4							M	H	H		M
CO5					H	M	M	H	H	M	M
CO6	M	H	H	M	M	M	M	H	H	H	H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Secondary Services (SES)

COURSE CODE : 6319

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
04	--	--	04	03	Max.	80	20	100	--	--	--	100
					Min.	32	--	40	--	--	--	--

1.0 RATIONALE:

The course intends to equip the students with concepts and principles of Ventilation and Air-conditioning, Acoustics, Safety and Security systems, Telecommunication systems. It will also develop the analytical skills in designing appropriate services layout.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop knowledge and concepts of secondary services
2. Use appropriate resources for interior services
3. Design layouts for Air Conditioning, safety and security.
4. Calculate volumetric load for Air Conditioning.
5. Develop knowledge about different communication systems
6. Choose the required fire detectors and fire extinguishers
7. Develop knowledge of interior services.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Discuss principles of heat and sound
2. Prepare Air Conditioning layout for residential and commercial spaces
3. Elaborate Air Conditioning system and their installation
4. Identify communication systems their uses and installation process.
5. Prepare safety and security layout for given interior space
6. Identify the different types of fire detectors and extinguishers

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Heat and Sound	1a. Describe principles of Heat and purpose of thermal insulation. 1b. Describe sound Properties, types of Sound and effect, Objective of acoustics 1c. Describe Strengthening of sound insulation and elimination of sound, Defects of sound. 1d. Describe and sketch sound Insulation process For auditorium, conference hall etc 1e. Suggest acoustical layout for given interior layout.	1.1 Principles of heat and effects of heat 1.2 Purpose of thermal insulation 1.3 Advantages of insulation 1.4 General principle of thermal insulation and modes of insulation. 1.5 Introduction of Sound and properties and propagation of Sound 1.6 Types of Sound and effects, objective of Acoustics Terminologies. 1.7 Strengthening of sound, insulating, and elimination of sound. ▪ Defects of sound. 1.8 Applications: Strengthening of sound, Insulating, and elimination of sound for various activity spaces such as Sound recording studio, Conference hall, Open office and small auditorium. 1.9 Suggesting Acoustical arrangement for given layout along with sectional elevations.	15
Unit-II Mechanical Ventilation and Air conditioning	2a. Describe principles of mechanical ventilation, ducting and distribution for ventilation. 2b. Define- propeller, Auxiliary fan and mechanical modes of ventilation 2c. Describe Principles of Air conditioning, Refrigeration Cycle. 2d. Describe non ductable and ductable ac system. 2e. describe window type ac, split ac 2f. describe central air conditioning system, chilled water system 2g. Calculate volumetric load for given area. 2h. Draft Air-conditioning layout for given interior plan along with distribution, ducting & calculating sizes.	2.1 Principles of ventilation: Mechanical Ventilation, Principles of Ducting and distribution for ventilation and conditioned air. 2.2 Types of Fans: propeller, Auxiliary. 2.3 Mechanical modes of ventilation Principles of Air conditioning, Refrigeration Cycle 2.4 Systems of Air-conditioning : Non-ductable and ductable ▪ Non-ductable: window unit, Split Ac's: Floor, wall, ceiling mounted. Split ductable, ▪ Ductable: Split, Packaged Unit-Air-cooled Duct 2.5 Floor standing Packaged unit-Air-cooled, water-cooled. Central air-conditioning, DX systems, Chilled water systems according to criteria of volumetric load, occupancy and various activities. 2.6 Applications: according to various criteria of volumetric load, occupancy and various activities. 2.7 Air-conditioning layout for given interior plan along with distribution, ducting & calculating sizes	26

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-III Communication Systems	3a. Describe types of communication equipment's. 3b. define- EPABX, Wi-Fi 3c. describe LAN, Wan system 3d. Prepare LAN layout for given interior layout.	3.1 Types of communication telephone, EPABX, Wi-Fi. Different types of telecommunication equipment's 3.2 LAN, WAN systems, Installation norms. 3.3 Making LAN layout for given interior layout along with legend	08
Unit-IV Safety and Security Systems	4a. Describe fire triangle and causes of fire. 4b. Describe prevention of fire. 4c. Describe smoke detectors, heat detectors, flame detectors and their installations norms. 4d. Describe suppression of fire and fire extinguisher. 4e. Describe principles of security and Types of security systems. 4f. Prepare security layout for interior.	4.1 Introduction to fire triangle and causes of fire. Fire prevention and Fire alarm systems: such as proprietary, central system, Auxiliary, Remote station system. 4.2 Fire detection: such as smoke detectors, heat detectors, flame detectors and their installations norms. 4.3 Systems for suppression of fire (i.e. Dry risers, Wet Risers, sprinklers.) and their installation norms. Systems for fire extinguishers; Dry chemical powders, CO ₂ , water type, and their installation norms. Fire retarding treatments such as coating, adding of fibres 4.4 Introduction and principles of security (as per situations) Types of security systems, field devices such as switches, sensors, card-readers, locks, cameras etc. Access controls Installation norms, Uses and applications. 4.5 Security layout for interior.	15
TOTAL			64

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Heat and Sound	06	06	06	18
II	Mechanical Ventilation and Air conditioning	06	18	08	32
III	Communication Systems	02	06	04	12
IV	Safety and Security Systems	06	06	06	18
TOTAL		20	36	24	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Prepare Air conditioning layout for commercial spaces.

2. Safety and security layout for residential area.
3. Prepare Market survey for heat and sound insulating material.
4. Prepare Market survey for air conditioning types.
5. Collect brochures for various safety security hardware.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange expert seminar of industry person on air conditioning system.
2. Lecture method.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Architectural Acoustics, Principles and Design	Madan Mehta & James Johnson	Library of congress Cataloguing in Publication Data
2	Noise and vibration	Frank and John Walk	British Library Cataloguing in Publication Data
3	Heating, cooling, Lighting Design	Norbert Lechner	Library of congress Cataloguing in Publication Data
4	Building services and equipments	Donald Hoff	Library of congress Cataloguing in Publication Data
5	ABC of Air conditioning	Ernest Tricomi	D. B. Taraporevala & sons

B) Software/Learning Websites

1. www.secondaryservice.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1		M								H	M
CO2	M			H							
CO3		H		H					M	H	
CO4			H		H						
CO5			H	H							
CO6			H	H	M	H	M	L			

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Allied Materials and Products (ANP)

COURSE CODE : 6320

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
04	--	--	04	03	Max.	80	20	100	--	--	--	100
					Min.	32	--	40	--	--	--	--

1.0 RATIONALE:

The knowledge of allied materials and products shall help the learner to enable their use, through methods of construction, for designing Interior spaces. The knowledge of such allied materials & products along with various construction techniques & knowledge of services enable students to achieve desired design outcome.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Select the appropriate materials for interior construction.
2. Describe the properties, types and uses of various building materials
3. State the properties, qualities, types and uses of glass.
4. Describe metals, non-metals and alloys
5. Describe the properties, types and uses of polymers and allied products.
6. Describe and compare different paints, varnishes and polishes.
7. Select and describe speciality materials.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Select varieties of glass based on the application and use.
2. Give the properties, qualities, types and uses of metals and alloys
3. List and describe the properties, types and uses of metals and alloys
4. Identify and select appropriate paints for interior works.
5. Identify and describe the various materials and allied products used in interiors.
6. Elaborate the constituents, types and uses of paints, varnishes and polishes.
7. Select appropriate furnishing, waterproofing and insulating materials.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Glass	1a. State types, uses and properties of glass. 1b. Describe the varieties of glass. 1c. Define glass. 1d. Describe the classification of glass.	1.1 Types, Quality, Properties and uses of glass. 1.2 Classification of glass such as soda lime glass, potash lime, potash lead glass and common glass. 1.3 Treatment on glass such as etching, acid washing, toughening, staining, bending, edge polishing, film application (sun control and decorative). 1.4 varieties of glass such as bullet-proof glass, fibre glass, foam glass, glass blocks, heat-excluding glass, obscured glass, safety glass, shielding glass, soluble glass, structural glass, ultra-violet glass, wired glass.	10
Unit-II Metals & Alloys	2a. Define ferrous, non-ferrous metals and alloys. 2b. Describe ferrous and non-ferrous metals. 2c. List the properties and uses of ferrous and metals. 2d. Describe alloys and its uses.	2.1 Type, Quality & Properties of Metals and Alloys 2.2 Uses of Ferrous Metals such as Cast iron, Wrought iron, Mild steel, high carbon steel. 2.3 Uses of Non- Ferrous Metals and Alloys such as Aluminium, Copper, lead nickel, Zinc, Brass, Stainless steel.	14
Unit-III Polymers & Allied Composites	3a. List the allied polymer composites. 3b. Describe polymers and allied products. 3c. State/write the properties and uses of fibre glass reinforced plastic, polycarbonates, acrylic, PVC.	3.1 Type, Quality & Properties of Plastics 3.2 Classification of plastic – With respect to behaviour of heating, structure and physical and mechanical properties. 3.3 Uses of thermo-set and thermo-plastics such as Nylon, Acrylic, PVC, Poly-butylenes, Poly-Urethanes. 3.4 Properties and uses of composites such as Polycarbonates, Glass reinforced plastic, Fibre reinforced plastic and Metal reinforced plastic.	10
Unit-IV Paints, Varnishes, Polishes & Coatings	4a. Define paints and varnishes. 4b. Name and describe the constituents of paints. 4c. List types of paints. 4d. Describe importance of painting. 4e. Describe the process of painting on different surfaces. 4f. Describe the types and importance of	4.1 Constituents (Pigment, Thinner.) and classification (Water, Oil, acrylic based). 4.2 Types (lime wash, distempers, acrylic emulsion, metallic, textured.), Textural quality (Matt, Gloss, Satin, Lustre.), and properties. 4.3 Process of painting (preparation of surface, primer coat.) & application of paint with brush, roller, spray. 4.4 Application of paints on old, new and different surfaces. 4.5 Constituents, Types & uses of Varnishes, Polishes & Coatings (French, Melamine, Lacquer, Polyurethane)	14

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	varnish.		
Unit-V Specialty Materials	5a. Differentiate between curtains and blinds. 5b. Describe upholstery materials. 5c. Describe the waterproofing. 5d. Describe waterproofing materials. 5e. Define insulating materials. 5f. List thermal and sound insulation materials.	5.1 Furnishing Materials: ▪ Types, Sizes and uses of Curtains, Screens and Blinds, Types, Sizes and uses of Cushioning (Coir, Foam, Rubber.) and Upholstery materials 5.2 Waterproofing Materials: ▪ Applications of Waterproofing materials such as Bitumen, Mastic asphalt, Asphalt sheets, Waterproofing powder, Gels and Liquids 5.3 Insulating materials: ▪ Types, Quality and properties of Thermal insulation and Sound insulation materials in granular, fibrous, rolled, sheeting and panel forms ▪ Uses of Sound insulating and Thermal insulating materials such as sand, PU beads, Glass wool, Rock wool, Foam, Thermacol, Cork, Quilt, Jute, Coir, Particleboard, Hollow bricks.	16
TOTAL			64

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Glass	04	04	04	12
II	Metals & Alloys	04	06	06	16
II	Polymers & Allied Composites	06	06	04	16
III	Paints, Varnishes, Polishes & Coatings	04	06	10	20
IV	Specialty Materials	06	06	04	16
TOTAL		24	28	28	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect market rates for various materials like glass, metals, non metals, polymers and allied composites, paints, polishes, varnishes.
2. Visit glass shop and collect samples of glass.
3. Visit shops and collect brochures for paints
4. Prepare notes of each topic.
5. Visit sites and observe the process of painting on different surfaces.
6. Visit shops/showrooms of furnishing materials and collect samples.
7. Collect samples of materials related to the study.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Lecture Method, Use of teaching aids.
2. Arrange visits to various material/shops/showroom/workshops related to study.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Materials of constructions	D. N. Ghosh	Tata McGraw Hill
2	Building Materials	Gurucharan Singh	Standard Pub, & Dist
3	Engineering Materials	S. C. Rangawala	Charottar Pub. Anand (India).
4	Engineering Materials	K. P Roy Choudhary	Oxford Press, New Delhi
5	Water Supply & Sanitary Engineering	S. C. Rangawala	Charottar Pub. Anand (India).
6	Construction Materials of Interior Design	William Rupp	Whitney Library

B) Software/Learning Websites

1. www.alliedinteriorproducts.com
2. www.alliedbuilding.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1		H	M		H	H	M	H	H		H
CO2		H	M		M	M	M	H	M		H
CO3		H	M		M	H	M	H	M		H
CO4		H	M		H	H	M	H	M		H
CO5		H	M		H	H	M	H	H		H
CO6		H	M		M	H	M	H	H		H
CO7		H	M		H	H	M	H	H		H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Estimating and Management (ETM)

COURSE CODE : 6321

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme			Examination Scheme									
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
03	--	02	05	04	Max.	80	20	100	--	25	25	150
					Min.	32	--	40	--	10	10	--

1.0 RATIONALE:

The course intends to enable students to learn Office management aspects of Interior Designing as a Profession. The course also intends to make them aware of current practices along with codes of conduct required to encompass skills and techniques of handling residential, commercial and tendered.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Describe standardized units, mode of measurements for different materials, labour & items of work.
2. Describe codes of conduct for ethical practice of interior design profession.
3. Develop knowledge of Tender and procedure of tendering.
4. Describe various functions carried out in an interior designer's office.
5. Describe project management, administration of design & execution aspect of an interior project.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. List out Standardized units, modes of measurement of materials, labour & items of work
2. State Codes of conduct for ethical practice of interior design profession.
3. Elaborate process of Tendering and Contracting.
4. State various functions carried out in an interior designer's office.
5. Prepare Bar charts, PERT and CPM.
6. Discuss career opportunities in interior design.
7. Apply basic principles of project management.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Estimating, Costing & Analysing Rates	1a. Define- Guesswork, Estimating, Costing and Rate analysis 1b. State the importance of estimating, costing & rate analysis. 1c. Describe components of estimating 1d. Describe methods of Estimating- lump-Sum, work specific, Area of use.	1.1 Introduction to concepts of guesswork, estimation, costing & rate analysis. 1.2 Need for estimating, costing & rate analysis. 1.3 Components of estimation, costing & analysing rates (Drawings & specifications, units & modes of measurements, work out put, material & labour cost, contingencies, profit margins, indirect costs). 1.4 Methods of estimating (lump-sum, work specific, area of use, per number of user, day-work, item-rate);costing (percentage basis, item rate basis) & rate analysis (Primarily item rate basis)	12
Unit-II Tender & Tendering	2a. Describe tender, Invitation of tender, floating of tender & Opening of tender. 2b. Describe units of Measurements and Modes of measurement, specifications of raw materials. 2c. describe and prepare tender Document and bill of quantities 2d. Describe contractual Procedures.	2.1 Tendering Procedure: Tender Document Preparation, Types of Invitations (Public Notice, Private Invitation, Negotiation) Floating of Tender, Opening and award of tender 2.2 Aspects of Tender: Units of measurement& modes of measurement; Specifications of raw materials; Specifications and Schedule writing 2.3 Contents of Tender Document: Undertaking from Contractor, Pre-qualification of tender, General conditions of tender, Bill of Quantities, General Specifications, Material specification, Special Specification, Set of working drawings 2.4 Contractual Procedures: Work order letter and acceptance letter, Interim bills and final bills, Bills certifications	12
Unit-III Career Opportunities & professional ethics	3a. Define professional Practice and codes of conduct. 3b. Explain responsibility towards client, public and professionals.	3.1 Avenues for professional practice including advantages and limitations Codes of conduct and responsibility towards client, fellow professionals, profession, contractors, suppliers, other consultants and the society 3.2 Codes of conduct and responsibility towards client, fellow professionals, profession, contractors, suppliers, other consultants and the society.	06
Unit-II	4a. Define office and Project management	4.1 Working of Interior Design Studio & ideal office structure; Distribution of	18

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Office & project management	Describe duties and Responsibilities of Interior designer. 4b. describe professional Ethics and professional fees & scales of fees 4c. prepare book of Accounts and records 4d. describe principles and applications of project management 4e. define- bar chart, PERT/CPM	work, authority, duties & responsibilities, reporting. 4.2 Work ethics: Acts applicable; Basis for Professional Fees & Scales of fees 4.3 Physical workplaces in the office; Accounting, maintenance of book of accounts and records 4.4 Basic principles of management and application to interior designing projects 4.5 Introduction to Bar Charts, Gantt Chart, PERT/ CPM	
TOTAL			48

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Estimating, Costing & Analysing Rates	04	04	12	20
II	Tender & Tendering	04	04	12	20
III	Career Opportunities & professional ethics	02	02	04	08
IV	Office & project management	08	08	16	32
TOTAL		18	18	40	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
	I	Estimating, Costing & Analysing Rates	08
1		Describe units and modes of measurements	02
2		Prepare estimate of any two residential furniture	03
3		Prepare estimate of any two commercial furniture	03
	II	Tender & Tendering	12
4		Prepare tender notice	02
5		Prepare special notice	02
6		Prepare letter of offer	02
7		Prepare work order letter.	02
8		Prepare letter of thanks	02
9		Prepare letter of acceptance	02
	IV	Office & project management	12
10		Prepare letter head	02
11		Prepare visiting card	02
12		Prepare envelope (commercial, window, policy, ticket etc)	02
13		Prepare bar chart	02
14		PERT	02
15		CPM	02
		TOTAL	32

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Prepare charts on modes of measurements.
2. Collect market rates of interior materials.
3. Collect visiting card designs
4. Collect letterhead designs and samples
5. Collect envelopes of different principles.
6. Prepare network diagram, bar charts of any activity.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange visits at Residential and Commercial spaces.
2. Arrange expert lecture/seminar of industry person on project and office management.
3. Introduce computer aided software's related to prepare estimates and BOQ

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Professional Practice (Estimation & Valuation)	Roshan Namavati	Lakhani Book depot
2	Architectural Detailing	Roshan Namavati	Lakhani Book depot
3	Professional Practice in	Christine M Pitrowski	Van Nostrand Reinhold
4	A Guide to Business Principle and Practices for Interior	Harry Siegel, CPA, Alan, Sigel	Whitney library of Design
5	Contract Interior Finishes	William R. Hall	Whitney library of Design

B) Software/Learning Websites

1. nsmarjiwe.blogspot.com/2012/10/estimation-in-interior-designing.html
2. <https://www.asid.org/content/how-interior-designers-charge-their-services>

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1		M	M			L		M			L
CO2		M	M		M		H	M	M	H	L
CO3	M		H	M	M		M	H	H	H	
CO4	H	H	H	H		M	M	H		H	M
CO5	M		H	M		L	H	H	H	H	M
CO6					M		M		M		
CO7			L				H	H	M	H	

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Professional Practices (PPR)

COURSE CODE : 6410

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
--	--	04	04	--	Max.	--	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0 RATIONALE:

The purpose of introducing professional practice is to provide opportunity to students to undergo activities which will enable them to develop confidence. This course intends the student to understand professional and practical aspects of Interior design through guest lectures & workshops; Market surveys; and Case studies & Site visits related to courses of Interior Design and Decoration.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop the ability to relate the theoretical knowledge acquired during lectures to practical activities.
2. Develop generic skills in team work, making decisions, communicating and collaborating.
3. Gain first-hand experience in aspect of workshops, market surveys, case studies and site visits related to interior design profession.
4. Develop observational and analytical skills.
5. Develop communication and presentation skills.
6. Develop professional ethics and code of conduct.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Prepare report on guest lectures, workshops and seminars.
2. Collect data and rate analysis of materials used in interior design.
3. Prepare report on market survey.
4. Prepare report on residential and commercial site visits.
5. Present and communicate efficiently.
6. Prepare report on computer aided software.

4.0 COURSE DETAILS:

Note: There are no separate classes for theory as given below. The relevant theory has to be discussed before the practical during the practical sessions.

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics
Unit-I Information search and data collection	1a. State market rates of various items of advanced construction and interior materials. 1b. State various soft-wares used in Interior Design and Decoration.	Information search 1.1 Need of Market survey for advanced construction and interior materials. 1.2 Importance of software's used in Interior Design and Decoration.
Unit-II Industrial visit/ market survey	2a. Develop technical report writing skills on industrial visits/ market surveys.	2.1 Industrial visits/market survey and report writing of : a. Visit to shops/showrooms of general hardware and decorative fittings and fixtures required for doors, windows and shutters. b. Market survey report on specialty fittings and fixtures for primary services
Unit-III Expert lectures/ workshops	3a. Write report on the expert lecture/workshop to obtain the professional knowledge.	3.1 Expert lectures/workshops from professionals/ industries on:- a. Water supply, sanitation and drainage. b. Software for Interior Design and Decoration. c. Electrical and lighting. d. Natural heating, ventilation and conditioning of air. e. Sketching and rendering. f. Carpentry joints g. Model making.
Unit-IV Case Study	4a. Prepare and present case studies of Residential and commercial unit.	4.1 site visit and analysis- case study on:- a. Residential unit b. Commercial unit.

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

Sr.No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
1		prepare a report on water supply	04
2		prepare a report on sanitation and drainage	04
3		prepare a report on electrical and lighting	04

Sr.No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
4		prepare a report on natural heating, ventilation and conditioning of air	04
5		Prepare a report on Software for Interior Design and Decoration.	04
6		Prepare Report on workshop of carpentry	08
7		Prepare Report on workshop of model making	08
8		Prepare Report on sketching and rendering techniques	04
9		Prepare a Market survey report on general hardware and decorative fittings and fixtures required for doors, windows and shutters	04
10		Prepare a Market survey report on specialty fittings and fixtures for primary services	04
11		Site visit on small scale residential units and prepare case study report.	08
12		Site visit on small scale commercial units and prepare case study report.	08
TOTAL			64

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect market rates for various types of General and Decorative hardware.
2. Collect market rates for various types of water supply and sanitary fixtures.
3. Collect market rates for various materials of doors, windows and shutters.
4. Collect market rates for various paints.
5. Collect market rates of various interior materials.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange site visit at Residential and Commercial spaces.
2. Arrange expert seminar, guest lectures of industry persons.
3. Arrange industrial visits, expert lectures, case studies related to Interior Design and Decoration.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Marketing Interior Design	Lloyd Princeton	Allworth Press
2	Interior Design Market	Nihon Boeki Shinkokai	JETRO, 1996

B) Software/Learning Websites

1. <http://www.gautamshah.in>
2. <http://retaildesignblog.net>

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.

Equipments	Specifications.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
C01				H	M			H	M		
C02		M			M	M	M	H	M	L	L
C03				H	M			H	M		
C04	M	M	M	H	M		L	H	H		
C05								H	H	M	
C06				H	M			H			

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Seminar (SEM)

COURSE CODE : 6411

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
--	--	02	02	--	Max.	--	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0. RATIONALE:

An engineering technician has to face number of problems / situations in his professional life and he has to convey his ideas through presentation.

Knowledge of scientific way of solving the problems and increase ability to apply it, to find alternative solutions for solving such problems will help a technician in his professional life.

The involvement of student in the seminar and project work will help him to develop this competency, combine the theoretical and practical concepts studied into useful applications, develop planning and execution skills and perform analyzing and trouble shooting of their respective seminar and project, develop skills in interacting with others, to work in team, search for obtaining the information and materials from number of sources and present the work in neatly documented report and present

2.0. COURSE OBJECTIVES:

The student will be able to

1. Develop abilities to search information
2. Convey ideas through seminar
3. Collect data, information from various resources
4. Develop planning of seminar activities
5. Develop skill to communicate the problems and solutions
6. Develop skill to prepare reports
7. Develop presentation skills

3.0. COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes as applicable to seminar:

1. Know and select seminar topic in Interior Design program
2. Familiar with maintaining diary for progress of seminar activities
3. Carry out literature survey from various resources
4. Provide ideas in problem solving
5. Develop document preparation skills
6. Use of presentation skill for seminar delivery
7. Keep updated with latest trends of knowledge and skills in professional life

4.0. COURSE DETAILS:

Activity No	Activities	Hours
1	Brief about selection for seminar topics in class: Discussion in class	02
2	Search seminar topics and approval of topic from guide from searched topics.	04
3	Prepare a Seminar Diary for writing progress	--
4	Collect data and literature for seminar from: internet / visit / Journals /Books/EBooks	04
5	Prepare synopsis of seminar topic: print draft copy	04
6	Submit seminar synopsis to guide (Printed copy)	--

Activity No	Activities	Hours
7	Guidance about preparation of document by guide	02
8	Prepare document by students	06
9	Edit document	04
10	Submit Seminar and presentation document: Hard copy & Soft copy of power point	02
11	Submit diary	--
12	Seminar Presentation	04
	TOTAL	32

5.0. AREAS FOR SELECTION OF SEMINAR:

Sr.No.	Areas For Selection
1	Materials and products for interior
2	Primary services
3	Secondary services
4	Walk through
5	Basic construction
6	Interior construction techniques
7	Advanced interior design
8	Computer application in Interior Design and Decoration
9	Advanced materials used in Interior Design and Decoration industries.
10	Advanced machineries and equipment used.
11	Topics related to Interior Design and Decoration

6.0. SUGGESTED INSTRUCTIONAL STRATEGIES:

Classroom Teaching, Industrial visit, Library Assignment, Home Assignment, Group Discussion, Case Studies.

7.0. LEARNING RESOURCES:

Magazines, Journals, Papers: National & international Reference Books, Internet, Previous seminars, Text Books, Codes of Practices e.g. IS Codes, Video Cassettes, Audio Cassettes, Compact Discs, Charts, Transparencies, Software, Models, Industrial visits, expert lectures/workshops.

8.0. GUIDELINES FOR SEMINAR:

1. Selection of topic for seminar:

- The student shall search from various resources and get the topic approved
- Topic of seminar should not be part of programme curriculum but will be based on curriculum with new developments.
- Topic of seminar should not be from the project taken by the group or by individual.
- Selection of topic should be finalised in consultation with teacher guide allotted for the seminar.

2. Submission of Seminar Document:

- The student shall get the seminar draft approved from Guide and complete final document.
- Each student shall prepare two hard copies of final seminar document and retain one copy with student and submit one hard copy to library and soft copy for department.
- The structure of the seminar document shall be as per the following format: Certificate / Acknowledgement / Index / Introduction / Detailed content / Conclusion / References. The photos, charts, animations, certificates from supporting agencies.
- Modify format suitably as per requirement of the seminar.
- The seminar report shall be of minimum 10 pages and max. 20 pages with 1.5 line spacing. Font: New Times Roman, left margin 3 cm, right margin 1.5 cm, top margin 2 cm, bottom margin 2 cm, header & footer 1.5 cm, page numbers, size of font 12 pt,

paragraphs left and right justified. It should be certified by seminar Guide and Head of department.

3. Evaluation of Seminar:

Evaluation of seminar will consist of Progressive Assessment, Presentation

i. Progressing Assessment:

1. Progressive assessment will be based on attendance, searching of various seminar topics, selection of title, collection of data from internet, Journals, Literatures, organization of data and preparation of document.
2. The student has to get seminar document assessed from guide regularly.
3. Head of department will sign once in a month.
4. The attendance of the student shall carry 05 marks as follows
 - a. Below 75 % : 00 marks
 - b. 75 % and below 80 % : 02 marks
 - c. 80 % and below 85 % : 03 marks
 - d. 85 % and below 90 % : 04 marks
 - e. 90 % and above : 05 marks

ii. Presentation of Seminar:

1. The time for presentation shall be 7 to 10 minutes per student
2. the question answer session time shall be 2 to 3 minutes per student
3. Evaluation of presentation of seminar will be carried out by a panel of teaching staff from institute based on the following point
 - a. Confidence and courage
 - b. Technical knowledge acquired
 - c. Presentation skill
 - d. Use of presentation medium e.g. AV aids, animation

iii. Marking scheme for Seminar.

Progressive assessment	Confidence and courage	Technical knowledge	Presentation skill	Use of presentation medium	Total
25	05	05	10	05	50

9.0. MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	M	M			H	H	M	H	H		M
CO2			H	M	H		H	H	H	H	L
CO3	M	H	H	M	H	H	H	H	H	M	M
CO4		H	M		M	M	H	H	H	H	H
CO5			H	M	H		H	H	H	H	L
CO6							H		H	H	H
CO7	M	M	M						H	H	H

H: High Relationship, M: Medium Relationship, L: Low Relationship.

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)
COURSE : Project (PRO) **COURSE CODE** : 6412

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
--	--	04	04	--	Max.	--	--	--	--	50	50*	100
					Min.	--	--	--	--	20	20	--

* Indicates TW to be assessed by external & internal examiners.

1.0 RATIONALE:

An engineering technician has to face number of problems / situations in his professional life and he has to convey his ideas through presentation. Knowledge of scientific way of solving the problems and increase ability to apply it, to find alternative solutions for solving such problems will help a technician in his professional life. The involvement of student in the seminar and project work will help him to develop this competency, combine the theoretical and practical concepts studied into useful applications, develop planning and execution skills and perform analyzing and trouble shooting of their respective seminar and project, develop skills in interacting with others, to work in team, search for obtaining the information and materials from number of sources and present the work in neatly documented report and present.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Integrate the knowledge of Interior Design programme
2. Develop the skill to identify the problem, define the problem statement
3. Develop the attitude to take scientific steps to find solutions to the problems.
4. Develop attitude to work in team and act as leader of project
5. Develop planning, execution skills
6. Build multidisciplinary concept, cost considerations
7. Understand recent developments in interior field and prepare report

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate some of course outcomes as applicable to project-

1. Participate effectively in group work.
2. Collect, analyse and synthesise the data.
3. Conduct a survey and investigate the activities.
4. Make appropriate decision.
5. Act as leader for group task.
6. Develop cost consideration.
7. Prepare technical drawings.

4.0 COURSE DETAILS:

Activity No	Activities
1	Formation of Group
2	Selection of Project: Individual/Group discussions
3	Define Problem statement for project work
5	Decide Strategies/Methodology to carry out project
6	Literature Survey/data survey
7	Submission of synopsis: by each group
8	Project activity plan-Defining activities, strategy, duration

Activity No	Activities
9	Allocation of work responsibility to individual/team
10	Visits to Industries / Institutions / Market/field work/sites
11	Collection of Data /Survey/Analysis
12	Design of Components, preparation of drawing, estimates wherever required, printed circuits design, its checking,
13	Fabrication, Assembling, Model/Prototype development, Testing as per project requirements
14	Progressive presentation of work and recording in diary
15	Consolidation of work allotted to individual or team
16	Presentation of initial draft: pre submission draft
17	Final Project Report: Printed: Submission: soft & Hard copy
18	Group presentation of project work at the time of final evaluation

The activities mentioned above shall be monitored and guided by Project Guide every week during the contact hours provided for the same.

The Project is also included with Seminar with the aim to develop certain set communication skills (preparation of report, writing survey report writing Lab. experiment results writing conclusions of the work done and physical phenomenon observed, participating in group discussions, verbally defending the project in the form of Seminar etc.)

5.0 AREA OF SELECTION FOR PROJECT:

These are only guidelines; any project related to Interior Design and Decoration depending upon the availability of projects may be included. Preference should be given to practical oriented projects according to the local needs.

Some of suggested projects are given below:

Sr.No.	Areas For Selection
1	Allied materials and products
2	Basic construction
3	Advanced interior design.
4	Specialty interior design
5	Landscape design
6	Set design
7	Primary services
8	Any other advanced topic related to Interior Design and Decoration

6.0 GUIDELINES FOR PROJECT:

A. Group Formation:

1. The department Head / Officer in charge should make sure that the project groups are formed within **one week** of the beginning of academic term and assign a faculty as project guide.
2. The students may be asked to work individually or in groups of five students. The group size may be varied in accordance with the effective compliance of project work.
3. The group can decide the leader and distribute work and prepare the group management structure.

B. Finalization of Project Title:

1. The students are expected to take up a project with the guidance of a Project Guide from the institute / Industry Expert / Sponsored by industry, Institute, society, self.
2. The project shall be as far as possible industrial project useful to society.
3. The students can seek help from TPO / HOD / Guide.
4. The group of students / Project guide / authority shall see the viability / feasibility of project over the duration available with the students and capabilities and setup available.

C. Note:

1. The group / student shall prepare Project Diary with Name of Project, Name of Students in group, their attendance, and daily progress and get assessed from guide from time to time during project hours.
2. Each student shall maintain individual progressive assessment sheet and get assessed from guide from time to time during project hours.
3. The title of the project should be finalized within **two weeks** after the group formation and a synopsis of the project should be submitted to the guide.
4. An abstract (synopsis) not exceeding 100 words, indicating salient features of the work should be submitted to guide
5. Modify format suitably as per requirement of the project.

D. Project Execution:

1. Guide shall monitor the work and help the students from time to time.
2. The progress shall be presented before the guide every week during project hours. The group shall take the signature of guide on Project Diary and Individual Progressive Assessment Sheet.
3. Head of department will sign once in a month.
4. The students shall design parts, prepare their drawing showing all details, and manufacture within the institute / sponsoring industry / workshop in local areas.
5. The guide should maintain a record of progressive / continuous assessment of project work and observe the progress of each group member on weekly basis.
6. The same shall be kept ready for submission to the external examiner before the final examination.

E. Evaluation of Project:

1. The evaluation of individual progress shall be followed as per the chart given.
2. External examiner and guide shall jointly evaluate the project.
3. The project can be evaluated on site if it is difficult to bring or demonstrate the trials in the institute
4. The attendance of the student shall carry 05 marks as follows
 - i. Below 75 % : 00 marks
 - ii. 75 % and below 80 % : 02 marks
 - iii. 80 % and below 85 % : 03 marks
 - iv. 85 % and below 90 % : 04 marks
 - v. 90 % and above : 05 marks
5. The details of project assessment are mentioned in Annexure II

F. Project Report:

1. The student shall get the initial draft copy of the project approved from the Project Guide.
2. Structure: It shall be as follows
 - 2.1. Title page, Inner title page (white), Certificate, Certificate from industry, Synopsis, Acknowledgment, Table of Contents, List of table & figures (optional), Introduction, Objectives of the Project, Methodology used, Design, Drawing of the part and assembly, Testing, Costing, Result, Conclusions & Scope for future, Merits, Demerits, Applications, Bibliography

- 2.2. Annexure consists of various designed parts and assembly drawings, photographs, charts, statistical data
- 2.3. CD of video clips /Power Point presentation
3. Each group has to submit one copy of project report to the library and one soft and hard copy to the department apart from the individual copy.
 4. The project report will be of 40 to 50, A4 Size pages with 1.5 line spacing. Font: New Times Roman, left margin 3 cm, right margin 1.5 cm, top margin 2.5 cm, bottom margin 1.5 cm, header & footer 1.5 cm, page numbers, size of font 12 pt, paragraphs left and right justified.
 5. Chapters (to be numbered in Arabic) containing Introduction-which usually specifies scope of work and the present developments. Main body of the report divided appropriately into chapters, sections and subsections. The chapters, sections and subsections may be numbered in the decimal form for e.g. Chapter 2, sections as 2.1, 2.2 etc., and subsections as 2.2.3, 2.5.1 etc.
 6. The chapter must be left or right justified (font size 16). Followed by the title of chapter centred (font size 18), section/subsection numbers along with their headings must be left justified with section number and its heading in font size 16 and subsection and its heading in font size 14. The body or the text of the report should have font size 12.
 7. The figures and tables must be numbered chapter wise.
 8. The last chapter should contain the summary of the work carried, contributions if any, their utility along with the scope for further work.
 9. Reference OR Bibliography:
The references should be numbered serially in the order of their occurrence in the text and their numbers should be indicated within square brackets for e.g. [4]. The section on references should list them in serial order in the following format.
 - 9.1. For textbooks- Dr. V. L. Shah & Veena Gore, Limit State Design of Steel Structures, Structures Publications, 1 Edition, 2009.
 - 9.2. For papers- David, Insulation design to combat pollution problem, Proc of IEEE, PAS, Vol 71, Aug 1981, pp 1901-1907.
 - 9.3. IEEE, PAS, Vol 71, Aug 1981, pp 1901-1907.
 - 9.4. Only SI units are to be used in the report. Important equations must be numbered in decimal form
 - 9.5. All equation numbers should be right justified.
 10. Each student from group shall have one copy with individual certificate only.
 11. The project report and progressive assessment sheets are to be submitted before the end of term declared in the Academic Calendar of the institute.

7.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1							M	H	H	H	M
CO2		M		M	M						H
CO3			M								H
CO4			M			M					H
CO5								H			H
CO6					M						H
CO7	M			M				H	H		M

H: High Relationship, M: Medium Relationship, L: Low Relationship.

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Interior Construction Techniques (ICT)

COURSE CODE : 6463

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	06	07	03	Max.	80	20	100	--	--	50	150
					Min.	32	--	40	--	--	20	--

1.0 RATIONALE:

The intends the students to understand the constructional details of Components such as stairs, partitions, panelling and ceilings to create functional Interior spaces, surfaces or enclosures; it also incorporates the detailed construction techniques to make storage Units required to be used in Interior spaces often. The student will also be able to work out the costs of the same in order to help understand the estimation process required for project budgeting.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop insight of interior constructional details.
2. Develop and describe constructional techniques of storages.
3. Develop valuation techniques of interior works
4. Design and draft partitions, panelling and ceiling constructional details.
5. Draw manual constructional details.
6. Develop constructional details for designing furniture items.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

- 1 Prepare the drawing of detailed construction work and select suitable material for the same.
- 2 Draw suitable staircase using different material.
- 3 Identify and select appropriate type of partitions, paneling's.
- 4 Identify and select various types of ceiling for different situation /locations.
- 5 Design and draw creative storage and display units.
- 6 Estimate the cost and quantities of interior work.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Staircase	1.a. Define elements of staircase 1.b. Describe Staircase and its Different types. 1.c. Differentiate between T.W. Stairs and M.S. Stairs. 1.d. Draw Constructional Details of Staircase.	1.1 Structural elements of staircase. 1.2 Types of Staircase : Straight, Dog legged, Half turn, Quarter turn, Geometric 1.3 Constructional methods of staircase using different Material. 1.4 Structural elements of T.W. staircase and M.S. staircase	03
Unit-II	2.a. Describe the methods of Rate	2.1 Calculating correct quantities by listing out various materials Used in each	03

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Rate Analysis	<p>Analysis.</p> <p>2.b. Estimate the work for given interior design work.</p> <p>2.c. Describe the labor work for given interior design work.</p> <p>2.d. Draw detailed construction work and select material for the given interior design work</p>	<p>furniture items.</p> <p>2.2 Calculating wastages, contingencies, and overheads for different materials.</p> <p>2.3 Polishing / painting or finishing quantities Identify the type of contractors needed for job work, His ways and rates of working for labour Different options for labour rates possible and used as per the mkt. Calculating labour required, overhead charges, Profit margin.</p> <p>2.4 Final drawing, detailing and working out the cost Of any items</p>	
Unit-III Partitions & Paneling	<p>3.a. Describe types of Teakwood and plywood Stud partitions.</p> <p>3.b. Prepare the Drawing and details of Acoustical thermal and modular Partitions.</p> <p>3.c. Describe the types of Paneling.</p> <p>3.d. Draw and design paneling and its constructional details.</p>	<p>3.1 Types of teak wood and plywood stud partition.</p> <ul style="list-style-type: none"> • Concepts of structural Variations, types of designs, materials used, modular or Readymade partitions, method of installing, Provisions for services involved. <p>3.2 Special types of partitions</p> <ul style="list-style-type: none"> • Detailing of acoustical, thermal and modular partitions. <p>3.3 Types of paneling</p> <ul style="list-style-type: none"> • Concepts of structural variations, types of designs, materials used modular or Readymade panelling method of installing, Provisions for services involved. <p>3.4 Special types of paneling.</p> <p>3.5 Aesthetical aspects, display Panel, constructional details.</p>	04
Unit-IV Ceilings	<p>4.a. Describe the ceiling and its types.</p> <p>4.b. Design ceiling using different Material showing constructional details</p>	<p>4.1 TW & Plywood, POP, Gypsum Suspended Aluminium T section, Modular, Acoustical, Metallic.</p> <p>4.2 Concepts of structural variations, types of designs, materials used, modular or readymade, methods of installing, provisions made for services</p>	03
Unit-V Storage & Display unit	<p>5.a. Describe the types of Storage.</p> <p>5.b. Describe the surface treatment and finishing</p>	<p>5.1 Types of storages possible as per the needs. Designing guidelines, Calculating storage needs, Deciding sizes, construction Shutters, Drawers, Shelves, Hardware, shape.</p> <p>5.2 Treatments and finishing for Storage and display units.</p>	03
TOTAL			16

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Unit-I Staircase	04	04	08	16
II	Unit-II Rate Analysis	02	02	04	08
III	Unit-IIIPartitions & Paneling	04	08	12	24
IV	Unit-IV Ceilings	04	04	08	16
V	Unit-V Storage & Display unit	04	04	08	16
	TOTAL	18	22	40	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
		Prepare in graphical form using any material- media such as pictures, photographs, cuttings or draw sketches:-	
1	I	Elements of staircase and Different material used - metal, glass, wood.	02
2	III	Different types of Partitions and Paneling- taking into consideration the height, materials, modes of construction.	04
3	IV	Different types of ceiling considering different levels, Materials, and decorative elements.	02
		Draw to scale - Plans, Elevations and Sections, including constructional details considering the given limits and parameters:	
4	I	Different types of staircase	04
5	I	A Wooden staircase.	06
6	I	A composite staircase	08
7	II, III	A partly glazed, partly panelled, wooden framed partition with swing door. Also work out the estimated cost.	08
8	III	A partly glazed, partly panelled, Aluminium framed partition with a pivot door with Floor-spring.	08
9	III	A heat insulating / acoustical partition.	06
10	III	A Decorative panelling using wooden framing to match the aesthetical appearance of Walls in office reception area or Living room or Hotel lobby.	06
11	IV	False ceiling made of G I framing with gypsum sheets showing details of fixing spot light /mirror optic light fitting.	08
12	IV	Typical detail of any readymade modular false ceiling including light fixing and Framing details.	06
13	II, V	Dressing unit for Master Bedroom. Work out the estimate for the same.	08
14	V	A display cum storage divider unit between kitchen and dining room with provision for disk mounted Television and crockery and books display.	08
15	V	A Gents and Ladies wardrobe.	06
16	II, V	Design an Office Table and estimate for the same	06
		TOTAL	96

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Study five staircases made out of different material and describe their utility.
2. Calculate tread and risers of 5 different types of staircases.
3. Site visit to different execution sites of ceiling and submit site visit report
4. Market study of 5 brands of ceiling material with availability and cost.
5. Collect different types of ceiling design from internet
6. Download the videos from internet about acoustical partitions
7. Market survey and study report.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Show videos/animation, charts and drawing related to working.
2. Show constructional details as well as fixing details.
3. Arrange visit on different execution interior construction sites.
4. Arrange an expert seminar on selection of material for construction as per requirement.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	The construction of Building Vol. II	R. Barry	ELBS Publication
2	The construction of Building Vol. IV	R. Barry	ELBS Publication
3	Text book on Building	S. P. Arora & Bindra	Dhanpat Rai & Sons
4	Building Construction	Rangwala S. C	Charottar Pub, Anand
5	Building construction	B. C. Punmia	Laxmo Publication
6	Building construction	Sushil Kumar	Laxmo Publication
7	Building construction I	Francirs D. K. Ching	Illustrated Van Nortrand

B) Software/Learning Websites

1. https://en.wikiversity.org/wiki/Building_construction_techniques
2. www.planningplanet.com/forums/project...issues.../methods-construction-c-interiors

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full color, 16.77 million colors, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
C01	H	H	H	H	M	H		H	H		H
C02	H	H	H	H	M	M		H	H		H
C03	M	H			M			H			H
C04		H	M		H	H		H	M		H
C05		H	M	H	H			H	H		H
C06	H						M	H			H

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Interior Working Drawing (IWD)

COURSE CODE : 6464

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
02	--	08	10	03	Max.	80	20	100	--	--	50	150
					Min.	32	--	40	--	--	20	--

1.0 RATIONALE:

The course intends to equip the students with thorough knowledge and skills of using advance interior construction techniques and materials for various complex furniture items and also be able to work out the costs of the same in order to help understand the estimation process required for project budgeting. This course also makes student to understand the future furniture design techniques in form of modular systems being extensively used in market now a days.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop designing skills for interior construction.
2. Develop drafting skills for interior working drawings.
3. Develop knowledge of modular furniture construction techniques.
4. Develop free hand sketching abilities.
5. Develop knowledge of materials required for interiors.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Elaborate appropriate system for modern kitchens used extensively in interiors.
2. Draw and describe appropriate method of construction, detailing, storage, materials, soft furnishing methods required for beds and seating systems in residential and commercial interiors.
3. List various complex materials required for tables and counters as furniture items.
4. Estimate the project cost and the quantities of materials required.
5. Design working details for various modular furniture items as per requirement.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Kitchen Furniture	1a. Draw and describe construction method for plumbing, drainage and electrification. 1b. Design and draw fabricated and modular kitchen platform frame work with cladding and finishing details. 1c. Describe different	1.1 In-Situ Kitchen Platform: Structure design, Construction technique, Material to be used for structure Cladding or surfacing. Provisions to be made for services like plumbing, drainage, and electrification. 1.2 Fabricated and Modular Kitchen Platform: Structural frame work design, cladding and finishing, dismantling, installing. 1.3 Storage Units & Kitchen Trolley Systems: O. H. Storage Units (Wall	08

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
	types of storage units. 1d. Design and draw five types of storage units.	mounted, suspended, cantilevered) Shelving, Hanging, rotating, sliding arrangements. Large storages, Bulk Storage, Loft Storage Modular/ Fixed Trolley systems (readymade, customized) Material effectively used for each purpose.	
Unit-II Beds & sitting System	2a. design and draw different types of bed with construction details and material specification for the same 2b. Describe different types of seating and draw their construction method with material specification	2.1 Beds: Study the composition, material, structure, storage, shape, joinery req. for designing the beds (Single, Double, Bunk, Sofa cum Bed, modular type) with & without storage as per the needs. Study diff. types of framing, finishing materials. STD sizes (bed size, mattress, shapes) 2.2 Seating: Simple seats, complex seats, sofa seats, office Seats (Upholstered/ Non- Upholstered). Cushioning & Tapestry methods	08
Unit-III Tables & Counters	3a. design and draft different residential and commercial tables with material and joinery description 3b. Define-counters, Design and draft five types of counters with surface finishing details. 3c. Describe and draw installation method of readymade paneling, acoustical partitions and thermal paneling.	3.1 Types of Tables: Studying different types of simple, large, small tables as required for Residences, offices, conferences with or without storage needs. Tables made for special use (Executive Table, Reception, Staff Table, Study, Conference, and Dining) Structures necessary for large tables. 3.2 Counters: Defining counters, types of counters (Bar, Bank, Ticket booking, service) to study structures, services involved, display systems, storages, and ledges. Different surface finishes, accessories needed. 3.3 Concepts of structural variations, types of designs, materials used modular or readymade panelling method of installing, provisions for services involved. Acoustical Partitions, Thermal panelling, Aesthetical aspects, display panels	10
Unit-IV Office System & Residential Systems	4a. Describe readymade furniture system-residential as well as commercial.	4.1 Study of residential as well as office systems. Studying readymade furniture systems and to be customized systems also.	06
		TOTAL	32

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Kitchen Furniture:	04	04	12	20
II	Beds & sitting System	04	04	10	18
III	Tables & Counters:	04	04	24	32
IV	Office System & Residential Systems	02	02	06	10
	TOTAL	14	14	52	80

Legends: R = Remembrance (Knowledge); U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

Note: Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
		Prepare in graphical form using any material-media such as pictures, photographs, cuttings, etc. or draw neat and proportionate sketches to explain:	
1		Different types of tables, shape, structure, purpose, services, materials, Modularity	02
2		Different types of counter their shapes, structure, purpose, services, materials. Bar counter and all the required details (Storage for glasses, bottles.)	06
		Draw to scale- Plans, Elevations and Sections, including constructional / working details, workout detailed quantities & prepare estimate considering the given limits & parameters:	
	I	Kitchen Furniture:	
3		Layout for kitchen/pantry area with storage requirements.	08
4		Storage in kitchen in trolley system & overhead storage	08
5		A partly glazed, partly panelled, Aluminium framed partition with a pivot door with Floor-spring.	08
	II	Beds & sitting System	
6		Double bed with storage. Also prepare the cost estimation.	08
7		Wooden Sofa chair having loose cushions.	08
8		Fully upholstered sofa	08
9		Double bed with storage. Also prepare the cost estimation.	08
	III	Office System & Residential Systems	
10		Study Table	08
11		Reception Table/ Desk.	08
12		Executive Table	08

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
13		Office Table OR Staff Table.	08
14		Conference Table	08
15		Dining Table for six persons.	08
16		Bar Counter	08
17		Bank Counter OR Ticket Counter OR Service Counter	08
TOTAL			128

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Study different materials and hardware required for modular kitchens.
2. Site visit to different modular kitchen showrooms
3. Collect information and samples of different furnishing and cushioning materials
4. Prepare 3D models of furniture items.
5. Collect different types of furniture design from internet
6. Download the videos from internet about acoustical paneling.
7. Market survey and study report.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Show videos/animation, charts and drawing related to working and Constructional details as well as fixing details.
2. Arrange a visit on different execution interior construction sites.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Text book on Building	S. P. Arora & Bindra	Dhanpat Rai & Sons
2	Building Construction	Rangwala S. C.	Charottar Pub, Anand
3	Building construction	B. C. Punmia	Laxmo Publication
4	Building construction	Sushil Kumar	Laxmo Publication

B) Software/Learning Websites

1. www.aceinteriordesign.weebly.com/scale-drawing.html
2. www.engineeringdrawing.org

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Color reproduction : Full color, 16.77 million colors, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1		H	H			M			M	H	
CO2	H	H	H	H	M	H				H	M
CO3		M	M		M	H	H	M	H	H	M
CO4	M		H	M			M	M		M	M
CO5		M	H			M		M			

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)
COURSE : 3D Max (MAX) **COURSE CODE** : 6465

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	03	04	--	Max.	--	--	--	--	--	50	50
					Min.	--	--	--	--	--	20	--

1.0 RATIONALE:

This course intends the student to understand the importance of 3D MAX for preparing and exchanging drawings. The students will be able to generate a realistic view of their design. Also, communicating their ideas becomes very easy and effective.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop the skill & knowledge in 3D Modelling and Animation.
2. Use basic 3d max command to develop 3D drawings.
3. Use commands for edit/modification of existing drawings as per needs and suggestions.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Get Started with Max
2. Apply 2D Splines, Shapes & compound object
3. Draw 3D Modelling views
4. Apply Light & Camera
5. Apply Texturing with Max
6. Render with mental ray renderer and scan line renderer.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Getting Started with Max and 3D modelling techniques	1a. Define modelling. 1b. Describe the max interface.	1.1 Definition of Modelling. 1.2 Exploring the Max Interface, Controlling & Configuring the Viewports, Customizing the Max Interface & Setting Preferences, Working with Files, Importing & Exporting, Selecting Objects & Setting Object Properties, Duplicating Objects, Creating & Editing Standard Primitive & extended Primitives objects, Transforming objects, Pivoting, aligning etc. 1.3 Standard primitives- Sphere, Box, Cylinder, Cone, Cube, Pyramid, Torus, Plain, Geo-Sphere. 1.4 Extended primitives-hedra, torus, knot, chamfer box. 1.5 Compound object 1.6 Modifiers	04

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-II 2D Splines & Shapes & compound object	2a. Describe splines, shapes and compound objects 2b. Describe objects with splines, Boolean.	2.1 Understanding 2D Splines & shape, Extrude & Bevel 2D, object to 3D, Understanding Loft & terrain, Modelling simple 2.2 Objects with splines, Understanding, Boolean.	02
Unit-III Material and Mapping	3a. Describe texturing with max 3b. create & apply standard materials	3.1 Using the material editor & the material explorer 3.2 Creating & applying standard materials 3.3 Adding material details with maps 3.4 Using atmospheric & render effects etc.	04
Unit-IV Lighting & Camera	4a. Describe lighting and camera 4b. Apply various light and camera.	4.1 Target camera. 4.2 Free camera. 4.3 Adjusting and working on lens. 4.4 Omni light. 4.5 Spot light. 4.6 Mental ray lighting.	02
Unit-V Rendering and walkthrough	5a. Render any object and save it in .jpg, .tif, .avi file. 5b. Set walkthrough with camera setting.	5.1 Render the object the object or views and save it in .jpg, .tif, .avi file. 5.2 Final render setting and walk through.	04
TOTAL			16

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

***Note:** Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.*

Laboratory Work

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
1	I	Create all type of Standard, Extended, Primitive objects	04
2	I	Create compound objects.	04
3	I	Import AutoCAD 3D model file in 3Ds MAX.	02
4	II	Create Doors, Windows and Stairs according to parameters	04
5	II	Convert all solid objects into editable mesh and editable poly.	04
6	II	Create walls, railing and foliage using AEC extended.	02
7	II	Create Doors, Windows frame, Panels, Glasses using Boolean	04
8	III	Import readymade 3D objects from internet and apply in MAX.	02
9	III	Apply different types of Lens and Effects in Lights	02
10	III	Create Bounce Effect of Water	02
11	I to III	Create Curtains using special modifiers	02
12	III, IV	Apply Camera, Lights and Materials in 3D Model view	04
13	I to IV	Create 3 seater sofa / double bed / six seating dining set in MAX.	04

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. required
14	V	Render model View using Default Scan line Renderer	02
15	V	Render model View using Mental Ray Renderer	02
16	V	Make walkthrough and save it in .avi file	04
TOTAL			48

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Visit to architectural and interior firms for understating the 3D Max and its applications and study of typical drawings prepared by Max.
2. Collect different types of max drawings in hard copy from architects, builders, and practicing engineers for preparing the same using Max software.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

Lecture Method, Use of teaching aids, Industrial Visits, Demonstrations and Expert Lectures.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	3dsmax7 Fundamentals	Ted Boardman	New Riders
2	3d'sMax5Fundamentals		Techmedia
3	Inside3dsmax7		New Riders
4	Modelling, Animatewith3d'smax6	Michele Bousquet	Many world

B) Software/Learning Websites

1. 3D MAX

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Color reproduction : Full color, 16.77 million colors, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1				H							H
CO2				H					H		M
CO3	M			H					H		H
CO4				H					H		M
CO5				H					H		H
CO6				H					H		M

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Advance Interior Design (AID)

COURSE CODE : 6579

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
02	--	07	09	08	Max.	160	40	200	--	25	25	250
					Min.	64	--	80	--	10	10	--

1.0 RATIONALE:

The course intends the students to develop the skills in planning of medium-scaled residential and commercial premises with appropriate usage of Allied materials & Products and application of Secondary services required for the interior design.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Design and plan medium-scale commercial spaces.
2. Develop skills in planning of medium-scale commercial spaces.
3. Identify and use appropriate allied materials in design.
4. Develop application skills in primary and secondary services required for the project.
5. Develop manual and computer aided drafting skills.
6. Design and execute medium-scale commercial spaces.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Design and Draft interiors for medium-scale commercial spaces.
2. Draw plans, sectional elevations and perspective views for the interior work
3. Prepare and present report on case study.
4. Prepare report on market study of different interior work.
5. Prepare a design brief for medium-scale commercial spaces.
6. Prepare technical drawings:- plumbing, ceiling and electrical, air-conditioning layout.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Medium-Scale Commercial Spaces. (up to 175 sq.mt area)	1a. Differentiate between Residential and Commercial Projects	Medium-scale commercial spaces. 1.1 Analysis of Residential and Commercial Projects.	06
	1b. Describe Instructions regarding case studies, observations & analysis	1.2 Relevant aspects of case studies, observation skills and analysis report.	06
	1c. Describe design brief	1.3 Key information related to the project, concept, theme and zoning.	06
	1d. Describe relevant aspects about Basic design, Materials, Construction, and Services.	1.4 Design elements, principals of design, and specifications of material, construction details of interiors.	08
	1e. Describe requirements of project as per client's expectations.	1.5 Design and interpret project requirements.	06
			TOTAL

5.0 SUGGESTED SPECIFICATION TABLE WITH MARKS (THEORY):

Unit No.	Unit Title	Distribution of Theory Marks			
		R Level	U Level	A and above Levels	Total Marks
I	Medium-scale commercial project (up to 175 sq.mt area)	40	40	80	160
	TOTAL	40	40	80	160

6.0 ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
	I	Commercial project- Branch Office of a company or bank, Departmental store, polyclinic, restaurant, showroom, Resto-bar, hotel presidential unit, kinder garden school.	
1		Prepare case-study report	04
2		Prepare market survey report	04
3		Prepare design brief sheet	06
4		Prepare requirement sheet	04
5		Draw a bubble diagram and zoning	04
6		Draft a Furniture layout plan and render it with any media	20
7		Draft any two sectional elevations and render it with any media	22
8		Draw perspective views with rendering	22
9		Draw technical drawings- ceiling and electrical layout, air-conditioning layout with considering safety and security	26
		TOTAL	112

7.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect market rates and samples for various interior materials.
2. Collect market rates and samples for various types of floorings
3. Collect market rates for various furniture items.
4. Collect market rates for various furnishing materials.
5. Collect market rates and samples for various ceiling material.
6. Collect sketches and designs of various furniture items.
7. Collect market rates of plumbing and sanitation.
8. Collect market rates and brochures for electrical and lighting fixtures.

8.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange visits at medium-scale Commercial spaces.
2. Arrange expert lecture/seminar of industry person on commercial interiors.
3. Introduce computer aided software's related to interior design.

9.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Design 02 Residential Space-I	--	Juzhu Kongjan
2	Design 09 Residential Space-III	--	Juzhu Kongjan
3	RS 03 Residential Space-III	Shenzen Nanhair Art Design Co. /edu	Juzhu Kongjan
4	The best exhibition Stand Design2	Stafford Cliff	Roto Vision Sa Switzerland
5	Stores: Retail Display and Design	Vilma Barr Katherine Field	PBC International Inc.
6	Design 02 Residential Space-I	--	Juzhu Kongjan

B) Software/Learning Websites

1. <http://designerspeak.com>
2. <http://visual.ly/interior-design>

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction: Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

10.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H	H	H	H	M			H		M	M
CO2	M	H	H	H				H			
CO3	M		H	H		M	H	H	H	M	
CO4	M		H	H	M	M	M	H	H	M	M
CO5	M	H	H	H	M			H			
CO6	H	H	H	H	M	M	H	H	H	M	M

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Speciality Interior Design (SID)

COURSE CODE : 6580

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
02	--	08	10	--	Max.	--	--	--	50	--	50	100
					Min.	--	--	--	20	--	20	--

1.0 RATIONALE:

The course intends the students to develop the skills in planning of complex commercial premises with appropriate usage of Allied materials & Products and application of Secondary services required for the interior design.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Design and plan large-scale commercial spaces.
2. Develop skills in conceptual planning of large-scale commercial spaces.
3. Identify and use appropriate allied materials in design.
4. Develop application skills in primary and secondary services required for the project.
5. Develop manual and computer aided drafting skills.
6. Design and execute large-scale commercial spaces.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Design and Draft interiors for large scale commercial spaces.
2. Draw plans, sectional elevations and perspective views for the interior work
3. Prepare and present report on case study for large scale commercial premise with various services, construction methodology and materials.
4. Prepare report on market study of different interior work.
5. Prepare a design brief for large scale commercial spaces.
6. Prepare technical drawings:- plumbing, ceiling and electrical, air-conditioning layout.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Large scale commercial spaces. (up to 350 sq.mt area)	1a. Differentiate between Residential and Commercial Projects.	1.1 Analysis of Residential and Commercial Projects.	06
	1b. Describe Instructions regarding case studies, observations & analysis	1.2 Relevant aspects of case studies, observation skills and analysis report.	06
	1c. Describe design brief	1.3 Key information related to the project, concept, theme and zoning.	06
	1d. Describe relevant aspects about Basic design, Materials, Construction, and Services.	1.4 Design elements, principals of design, and specifications of material, construction details of interiors.	08
	1e. Describe requirements of project as per client's expectations.	1.5 Design and interpret project requirements	06
			TOTAL

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
	I	Commercial project- interior design of commercial premise up to 350 sqm. :-specialty Restaurant, five star hotel lobby, multiplex entrance foyer, casino, post-office, bank, corporate office, office for software. Mega store, supermarket, educational institute.	
1		Prepare case-study report	06
2		Prepare market survey report	06
3		Prepare design brief sheet	06
4		Prepare requirement sheet	06
5		Draw a bubble diagram and zoning	06
6		Draft a Furniture layout plan and render it with any media	24
7		Draft any two sectional elevations and render it with any media	24
8		Draw perspective views with rendering	24
9		Draw technical drawings- ceiling and electrical layout, air-conditioning layout with considering safety and security, furniture details.	26
		TOTAL	128

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Collect market rates and samples for various interior materials.
2. Collect market rates and samples for various types of floorings
3. Collect market rates for various furniture items.
4. Collect market rates for various furnishing materials.
5. Collect market rates and samples for various ceiling material.
6. Collect sketches and designs of various furniture items.
7. Collect market rates of plumbing and sanitation.
8. Collect market rates and brochures for electrical and lighting fixtures.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Arrange visits at large scale Commercial spaces.
2. Arrange expert lecture/seminar of industry person on commercial interiors.
3. Introduce computer aided software's related to interior design.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	New shop Design	Carles Broto	Arian Mostaedi
2	Exhibition Design	Rolshoven Martin	Rockport Publishers
3	Interior Design Bar and Restaurant	Jeong JI Seong ed.	Jeong JI Seong
4	Design for Shopping New Retail Interiors	Nanuelli Sara	Laurence King Publishing Ltd
5	Interior design boutique, hotel & spa (Motel & hotel)	Jeong JI Seong	Jeong JI Seong

B) Software/Learning Websites

1. <http://designerspeak.com>
2. <http://visual.ly/interior-design>

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction: Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H	H	H	H	M			H		M	M
CO2	M	H	H	H				H			
CO3	M		H	H		M	H	H	H	M	
CO4	M		H	H	M	M	M	H	H	M	M
CO5	M	H	H	H	M			H			
CO6	H	H	H	H	M	M	H	H	H	M	M

H: High Relationship, M: Medium Relationship, L: Low Relationship.

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Landscape Design (LDG)

COURSE CODE : 6581

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	04	05	--	Max.	--	--	--	--	50	50	100
					Min.	--	--	--	--	20	20	--

1.0 RATIONALE:

This course intends the student to understand professional and practical aspects of Interior design through guest lectures & workshops; Market surveys; and Case studies & Site visits related to courses of second semester.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Design and plan small scale spaces.
2. Develop skills of landscape planning for interior and exteriors
3. Identify and use appropriate plant species.
4. Develop application skills in landscape services
5. Develop knowledge about landscaping materials and tools.
6. Design and execute small-scale landscape sites.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Design and Draft small scale landscape layouts
2. Draw plans, sectional elevations and perspective views for landscape work
3. Prepare and present report on case study.
4. Prepare report on market study of different landscaping project
5. Select and apply different plant species for interior and exterior work
6. Prepare technical drawings for landscape work.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Introduction To Landscaping	1a. Describe principles of landscape design. 1b. Describe elements of landscape design	1.1 History of Background 1.2 Principal of Landscape Design 1.3 Elements of landscape Design	02
Unit-II Site Parameters	2a. Prepare site analysis report. 2b.	2.1 Site Analysis 2.2 Site Assessment 2.3 Defining use of area	01
Unit-III Landscape Elements & Materials	3a. Prepare charts / catalogue for different flowering, medicinal plants, shrubs etc. 3b. List natural and manmade landscape material	3.1 Selection of plant species 3.2 Flowers 3.3 Natural and manmade landscape materials.	04

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-IV Landscaping	4a. Describe Exterior landscaping 4b. Describe interior landscaping 4c. Describe principals of interior landscape maintenance.	4.1 Exterior landscaping 4.2 Interior landscaping 4.3 Principles of interior landscape maintenance.	04
Unit-V Design of Landscaping	5a. Prepare site inventory report 5b. Describe design process 5c. Prepare report on case studies	5.1 Site inventory 5.2 Design process. 5.3 Case studies 5.4 Conversion formulas	03
Unit-VI Terrace Gardening	6a. Draw a section of Terrace Garden & Explain its construction 6b. Prepare a list of plant species suitable for Terrace Garden	6.1 Need & Importance of Terrace Garden. 6.2 Construction of a Terrace Garden. 6.3 Selection of plant species for Terrace Garden.	02
TOTAL			16

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

The tutorial/practical/assignment/task should be properly designed and implemented with an attempt to develop different types of cognitive and practical skills (**Outcomes in cognitive, psychomotor and affective domain**) so that students are able to acquire the desired programme outcome/course outcome.

***Note:** Here only outcomes in psychomotor domain are listed as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of **Programme Outcomes/Course Outcomes in affective domain** as given in the mapping matrix for this course. Faculty should ensure that students also acquire Programme Outcomes/Course Outcomes related to affective domain.*

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
1	I, III	Prepare case study and market study report of elements and materials used in landscaping	04
2	I, II	Prepare design brief sheet for given landscape area	04
3	III	Prepare basic planning and zoning sheet	04
4	III, IV, V	Design and draft landscape plan for given layout	24
5	III, IV, V	Draft two sectional elevation	10
6	III, IV, V	Draft four views of given work	10
7	VI	Draft a typical details of terrace garden	08
TOTAL			64

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Site visit in groups at residential and commercial landscaping sites.
2. Market surveys in groups on types, availability, sizes, and rates of: landscape elements.
3. Collect rates and samples of different landscaping materials.
4. Gather information about different plant species
5. Preparation of journal on flowers, plants, shrubs types

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Organize Guest Lectures through eminent professionals for Residential & Commercial Landscaping.
2. Lecture Method, Use of teaching aids, Industrial Visits, Demonstrations and Expert Lectures.

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Landscape architecture.	Simonds.	Holt, Rinehart, and Winston,
2	Landscape design practical approach (5th edition)	Leroy g. Hannebaunn.	Prentice Hall, Englewood Cliffs
3	Colour drawing: design drawings skills and technique for architects, landscape architect, and interior designers, 2 nd edition	Nichaoel E. Doyle.	Southern Illinois University Press

B) Software/Learning Websites

1. www.gardendesign.com
2. www.countryliving.com
3. www.learninglandscapesdesign.com

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction: Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	H	H	H	H				H		M	M
CO2	M	H	H		M			H			
CO3	M	H	H		H	M	H	H	H	M	H
CO4	M	H	H		M	M	M			M	M
CO5	M	H	H			H		H		H	M
CO6	H	H	H			M	H	H	H	H	M

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Set Design (SDG)

COURSE CODE : 6582

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme				Examination Scheme								
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	04	05	--	Max.	--	--	--	--	50	50	100
					Min.	--	--	--	--	20	20	--

1.0 RATIONALE:

This course intends the Students will be able to identify the elements of set design and have gained some skill in the manipulation of design elements.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Develop an understanding of design practices utilized in theatrical scenic design. Lear to analyse a script from a scenic design perspective.
2. Develop research skills in scenic design.
3. Develop a scenic design process.
4. Develop skills in representing initial design decisions through thumb-nail sketches and floor plans.
5. Develop skills in making 2-D representations of final design decisions through creating theatrical floor plans, perspective sketches and renderings.
6. Develop skills in making 3-D representations of final design decisions through creating concept, white, and presentation models.
7. Develop an appreciation for varied design solutions for theatrical productions.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Design and Draft small scale design layout
2. Draw plans, sectional elevations and perspective views for given set
3. Prepare and present report on case study.
4. Prepare report on market study of different material related to set design
5. Select and apply different materials for given work
6. Prepare technical drawings:- service layout for given work
7. Prepare 3d model of given work.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Introduction of basic set, stage. Floor plans	1a. Prepare script analysis	1.1 Script Analysis 1.2 Area Assessment 1.3 Defining use area 1.4 Site inventory	02
Unit-II Site Parameters	2a. List material and its use	2.1 Selection of materials for set design ▪ Light & it's type ▪ Sound arrangement ▪ Curtains ▪ Wings	04

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
		<ul style="list-style-type: none"> ▪ Furniture Elements ▪ Colour scheme 	
Unit-III Landscape Elements & Materials	3a. Prepare plan, elevation and perspective views of given set	3.1 Design process. <ul style="list-style-type: none"> ▪ Plan ▪ Elevations ▪ Perspective Sketching 	10
		TOTAL	64

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
1	I, II, III	Prepare design brief sheet for given space	04
2		Prepare basic planning and zoning sheet	04
3		Design and draft plan for given layout	28
4		Draft two sectional elevation	12
5		Draft four views of given work	12
6		Prepare service layout of given work	04
		TOTAL	64

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Site visit in groups at residential and commercial sites.
2. Market surveys in groups on types, availability, sizes, and rates of materials
3. Collect rates and samples of different materials.
4. Gather information about different set design concepts/theme.

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Site visit to different sets.
2. Expert lecture
3. Group task

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Designing and Drawing for the Theatre	Lynn Pecktal	McGraw-Hill
2	Scene Design and Stage Lighting, Sixth Edition	Parker, Oren W.; Wolf. Craig, R.	Holt, Rinehart, and Winston,
3	Scene Design in the Theatre,	Sporre, Dennis J.; Burroughs, Robert C. (Bookstore)	Prentice Hall, Englewood Cliffs
	Theory and Craft of the Scenographic Model Revised Edition	Darwin Reid Payne	Southern Illinois University Press

B) Software/Learning Websites

1. www.architecturaldigest.com/celebrity
2. www.artsalive.ca/en/eth/design/set.asp

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
Projector	Type of display Poly-silicon TFT active matrix Resolution Bright Link 480i:1024 × 768 pixels (XGA) Bright Link 475Wi/485Wi:1280 × 800 pixels (WXGA) Lens F= 1.80, Focal length: 3.71 mm Colour reproduction : Full colour, 16.77 million colours, Focus adjustment- Manual, Zoom adjustment- Digital, Zoom ratio-1:1.35 OR Latest specification at time of procurement.
Projector Screen	116" Diagonal viewing screen, Manual pull down Screen for both ceiling and wall usage OR Latest specification at time of procurement.
B/W Printer	Print speed black (normal, A4) Up to 14 ppm Print speed. Duty cycle (monthly, A4) Up to 5000 pages Recommended, monthly page volume 250 to 2000 OR Latest specification at time of procurement.

9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CO1	M	M	H	H							
CO2		H	L								
CO3						M	M	H	H	H	
CO4	M					M		H	H	H	H
CO5	H	M			H			H	H	M	H
CO6	M	M								H	
CO7				H							

H: High Relationship, M: Medium Relationship, L: Low Relationship

PROGRAMME : Diploma Programme in Interior Design and Decoration (ID)

COURSE : Graphic Design (GDG)

COURSE CODE : 6583

TEACHING AND EXAMINATION SCHEME:

Teaching Scheme			Examination Scheme									
Hrs / week			Credits	TH Paper Hrs.	Marks							
TH	TU	PR				TH	TEST	TH+TEST	PR	OR	TW	TOTAL
01	--	04	05	--	Max.	--	--	--	--	50	50	100
					Min.	--	--	--	--	20	20	--

1.0 RATIONALE:

Graphic Design is intended to be a first course in computer aided page design. The skilful combining of images and text become the core of this course. It is a working studio class and through demonstrations and hands on work you will learn to solve visual problems using Adobe Photoshop CS2 and Adobe In Design CS2. This "hands on" experience is the key to success in this class. In the end, you will work on traditional design problems leading to a portfolio of 10 pieces illustrating concepts learned.

From postage stamps to giant billboards, graphic design permeates our environment. Understanding how to apply basic design concepts to the presentation of informative or persuasive material is crucial to communicating with an audience. Typography, image, space, colour, and form will be integrated as the term progresses. The main emphasis of the course will be on you and your work. By actually working, taking risks, experimenting, making mistakes and creating with the computer, much is to be learned.

2.0 COURSE OBJECTIVES:

The student will be able to

1. Acquire, articulate, and apply specialized terminology and knowledge relevant to graphic design
2. Assess, predict, and articulate the influence and importance of graphic design
3. Acquire and demonstrate competency in technical skills applicable to graphic design.
4. Access information through traditional and new technologies, and synthesize this information for problem solving activities.
5. Critically analyze and evaluate information from multiple sources and diverse perspectives.
6. Understand the relationship of graphic design to other disciplines and to society.

3.0 COURSE OUTCOMES:

The course content should be taught and learning imparted in such a manner that students are able to acquire required learning outcome in cognitive, psychomotor and affective domain to demonstrate following course outcomes:

1. Operate Photoshop and coral draw.
2. Edit photographs for use in your projects.
3. Edit Fonts and Typefaces.
4. Identify Finding image resources on the web.
5. Identify Layers, scale.
6. Prepare Page layout and design.
7. Create images for print and for web pages: managing file size.

4.0 COURSE DETAILS:

Unit	Major Learning Outcomes (in cognitive domain)	Topics and Sub-topics	Hours
Unit-I Photoshop & Coral Draw	1a. Describe editing photographs. 1b. List fonts and typefaces	1.1 Editing photographs for use in projects. Fonts and Typefaces, Ink Jet printing using archival materials. The fine print, finding image resources on the web Layers, scale page layout and design, creating images for print and for web pages: managing file size.	08
Unit-II Two Dimensional Design Principles	2a. Describe two dimensional principles.	2.1 Form. 2.2 Repetition 2.3 Structure 2.4 Similarity 2.5 Gradation 2.6 Radiation 2.7 Anomaly 2.8 Contrast 2.9 Concentration 2.10 Texture 2.11 Space	08
TOTAL			16

5.0 ASSIGNMENTS/PRACTICALS/TASKS:

Sr. No.	Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Approx. Hrs. Required
		4 major projects to be executed on paper. Your final portfolio will include the final printed examples of that work as well as electronic variations and trials leading up to your finished, final solutions.	
1		Design U. S. Postage colour output to be 7" X 9" Guidelines for designing a U. S postal stamp Every new stamp issued from 1997 to present	16
3		Design poster for an art or cultural event. Size 13" X 19". The Swiss Poster Collection at Carnegie Mellon University Armin Hoffman Poster Designs Poster Designs using the letter "B" The International Poster Biennale in Warsaw September 11, 2001 poster project Rene Warner's mega link list Palestine Poster Project	32
4		CD design Eisner Museum History of Album Design, Interesting flash presentations Wikipedia article Museum of Bad Album Covers Visual Encyclopaedia of Symbols	08
5		Design book cover including front, back, spine and end flaps	08
TOTAL			64

6.0 STUDENT ACTIVITIES:

Following is the list of student activities

1. Gather information about different design concepts/theme.
2. Gather information about different design graphics
3. Prepare charts on commands

7.0 SPECIAL INSTRUCTIONAL STRATEGIES (If any):

1. Expert lecture
2. Group task

8.0 LEARNING RESOURCES:

A) Books

Sr.No.	Title of Book	Author	Publication
1	Layout Index: Brochure, Web Design, Poster, Flyer, Advertising, Page Layout, Newsletter, Stationery Index-	Jim Krause; Paperback	McGraw-Hill
2	The Non-Designer's Design Book, Second Edition-	Robin Williams (Author); Paperback	Holt, Rinehart, and Winston,
3	Numerous Photoshop tutorials online at	http://www.adobe.com/	--
4	Excellent Photoshop	Videos: http://lynda.com/ .	--
5	Virtual Training Co.	Photoshop CS2 Essential Training with Michael Ninness	Prentice Hall, Englewood Cliffs

B) Software/Learning Websites

1. www.aiga.org
2. <https://www.creativelive.com>

C) Major Equipments/ Instruments with Broad Specifications

Equipments	Specifications.
Computer	Multicore 64-bit processor, 8 GB Boot Drive, 8GB RAM minimum 200 GB Hard Disk. OR Latest specification at time of procurement.
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9.0 MAPPING MATRIX OF PO'S AND CO'S:

Course Outcomes	Programme Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
C01	M			H			L	H	M		M
C02	M	M		H				H			M
C03	M	M		H	M						
C04	M	M	L	H						L	
C05	M	M		H							
C06	M	M	M	H							
C07	M	M		H			L			L	

H: High Relationship, M: Medium Relationship, L: Low Relationship

Annexure : I

Rules for Registration and Examination

Important Rules of Registration for courses.

1. An eligible student must register to minimum three courses and maximum seven courses during each term.
2. While registering for a course at the beginning of a term, a student shouldn't have backlog of more than seven courses of any term as carried over due to failure or any other reason.
3. A student can register for a Project work only after acquiring minimum 100 credits.
4. A student will have to re - register for a course/s if he / she is detained from the course/s for any reason.

Important Rules regarding Registration for Examination

1. A student can register for examination of only those courses for which he has registered and kept term.
2. A student can register for examination for not more than 10 courses in one examination.
3. A student will have to re-register for examination of theory or Practical / oral of a course if he / she fails in examination.
4. A student will be allowed to re-register for examination in accordance with rules if he / she was eligible to appear for last Examination but he/ she failed to appear last examination for any reason.
5. A student will not be able to cancel his registration after he / she is Registered for examination

Other Important Rules

1. A candidate will be eligible for the award of diploma when he / she acquires the required number of credits for a Programme.
2. No candidate will be allowed to appear for examination of any course unless the Head of the Department certifies that
 - 2.1 Attended at least 75% of the prescribed lecture hours, tutorial hours, practical hours or any other kind of work and or assignment for the course as the case may be in conformity with the provision laid down in the course contents.
 - 2.2 Satisfactorily completed specified laboratory practical, term work prescribed in curriculum for the course.
3. No candidate will be permitted to reappear to any course of any examination in which he has once passed.

Standard of Passing

1. Theory, total of theory and periodic test, practical, oral and termwork examination shall be separate head of passing.
2. To pass examination of any course, a candidate must obtain a minimum of 40% marks in each head of passing prescribed for that course taken separately.

Periodic Test

1. Two periodic tests will be conducted during each term for the courses as per their examination scheme.
2. Average marks of the two period tests will be considered for each course separately.
3. Reappearing for the periodic test for improvement of marks is not allowed.

Term Work

1. Term work is a document submitted by the candidate consisting of report of site / field visit and / or laboratory work and / or drawing sheets / sketch books / jobs / model. Such term work shall be submitted before the end of academic term and it shall be satisfactory in the opinion of concern faculty member, Head of the Department and Principal of Institute.

Grace Marks

1. Grace marks shall be applicable if the rules of "standards of passing" are fulfilled.
2. The grace of maximum three marks will be given in either in "Theory marks", or "Periodic test" or "total of theory and periodic test", if it falls short by maximum three marks to pass a course.
3. The grace of maximum three marks shall not be applicable twice for the same course. i.e. for "theory" and "total of theory and periodic test" of same course.
4. The grace marks are not applicable to practical, oral, term work examination.

Award of Class

First Class with Distinction	:	70% or more
First Class	:	60% and above but less than 70%
Second Class	:	50 % and above but less than 60%
Pass Class	:	40% and above but less than 50 %

Annexure : II

Evaluation Scheme for Project

Term Work : Max. Marks : 50 Min. Marks : 20.
Oral : Max. Marks : 50 Min. Marks : 20.

Progressive Assessment

Name of the student: **Enrolment No.:**
Term : II / III ODD / EVEN
Programme: Interior Design and Decoration
Course : Project **Code :** 6412 **Project Guide :**

Title of Project :

SN	Project Activities	Date / Week	Leader ship	Understanding	Observation & Accuracy	Contribution	Timely Completion	Total	Signature of Student	Signature of Guide	Signature of HOD
			5	5	5	5	5	25			
1	Formation of team & finalization of project	1									
2	Submission of synopsis : by each group	2									
3	Project activity plan	3									
4	Maintenance Project Diary	6									
5	Visits to Industries / Institutions / Market	7									
6	Collection of Data / Survey	9									
7	Analysis and Presentation of data.	10									
8	Pre submission seminar	13									
9	Presentation of Rough Work : hand written	14									
10	Final Project Report : Submission	15									
	Total by Internal : out of 250										

The Term Work : Convert the total given by internal to "out off 25".

Signature of Project Guide

Project assessment :

Term Work			Oral		
Internal	External	Total	Internal	External	Total
25	25	50	25	25	50

Annexure : III**Committees****1. Governing Body (GB)**

Sr. No	Name & Office Address	Governing Body Designation
1	Shri. Pramod Naik Joint Director, Directorate of Technical Education, M.S. Mumbai	Chairman
2	Shri. Mahendra Kothari Chairman, Maharashtra State Pipe & Allied Industry, D-5, MIDC Satpur, Nashik.	Member
3	Shri. Ashok Katariya Chairman, Ashoka Group of Companies, Ashoka House, Ashoka Marg, Nashik.	Member
4	Dr. Ramesh Unnikrishnan Regional Officer and Director, Regional Office, (AICTE) Regional Office, Western Region, Mumbai.	Member
5	Shri. B. S. Joshi The Joint Director, Industries, Regional Office, Nashik	Member
6	Shri. V. D. Patil Coordinator, NITTR-Bhopal Extension Center, Pune.	Member
7	Shri. S. P. Wagh Chairman, Consumer Grievances Redressal M.S.E. Dist.Co.Ltd, Nashik	Member
8	Shri. Kishor Patil Institute Of Career & Skills, 3, Adgaonkar plaza basement, ABB circle, Mahatma Nagar, Nashik-422007.	Member
9	Shri. Harishankar Banerjee President, NIMA, MIDC, Satpur, Nashik.	Member
10	Shri. F. A. Khan Principal, Govt. Polytechnic, Aurangabad.	Member
11	Shri. Manish Kothari Chairman, Institution of Engineers Nashik Local Centre, Nahik.	Member
12	Prof. Dnyandeo P. Nathe Principal, Government Polytechnic, Nashik	Member Secretary

2. Board of Studies (BOS)

Sr. No.	Name & Office address	BOS Designation
1	Shri. S. P. Wagh Chairman, Consumer Grievances Redressal M.S.E. Dist. Co. Ltd, Nashik	Chairman
2	Shri. Sunil Bhor Project Management Consultant, 659/A wing second floor market, Shopping complex Dindori Road, Nashik.	Member
3	Shri. Bhalchandra R. Patwardhan Plot No.24, Atharva Raw House, Bhavik Nagar, Gangapur Road, Nashik-13.	Member
4	Shri. Kishor T. Patil Institute Of Career & Skills, 3, Adgaonkar plaza basement, ABB circle, Mahatma Nagar, Nashik-422007.	Member
5	Shri. Kishor Vyas Digilog System Pvt. Ltd., 15, Shriram sankul, Opp. Hotel Panchavati, Vakilwadi, Nashik.	Member
6	Shri. Chandrashekhar. B. Dahale F1, Computer Service, No. 2, Sukhraj, Near Parijatnagar bus stop,Nashik 422005	Member
7	Shri. M. M. Dube Sr. Executive, Systems, M & Q, C-1, MIDC, Ambad, Nashik-10	Member
8	Shri. Anant Tagare Principal Engineer, Validation, Mahindra & Mahindra Ltd., R & D Centre, 89, MIDC, Satpur, Nashik-422007	Member
9	Shri. Aaush Potdar Director, Poddar Clothing Industries, Nashik.	Member
10	Shri. Vijay Sanap Architect & Consultant, Soham Constructions, Nashik.	Member
11	Shri. Pramod U. Wayse Deputy Secretary (T), MSBTE, Regional Office, Osmanpura, Aurangabad-431005.	Member
12	Shri. P. T. Kadve Principal, K.K. Wagh Polytechnic, Nashik.	Member
13	Shri. R. N. Vaidya HOD, Civil Engg., Govt. Polytechnic, Nashik.	Member
14	Shri. S. R. Deshkukh HOD, Civil Engg (II Shift), Govt. Polytechnic, Nashik	Member
15	Dr. C. Y. Seemikeri HOD, Mechanical Engg., Govt. Polytechnic, Nashik.	Member
16	Dr. Sanjay Ingole HOD, Mechanical Engg (II Shift), Govt. Polytechnic, Nashik	Member
17	Shri. J. B. Modak I/C, HOD, Plastic Engg., Govt. Polytechnic, Nashik.	Member
18	Shri. L. S. Patil I/C, HOD, Elect. Engg., Govt. Polytechnic, Nashik.	Member

Sr. No.	Name & Office address	BOS Designation
19	Shri. Yogesh Sanap I/C, HOD, Info. Tech. & Comp. Tech., Govt. Polytechnic, Nashik.	Member
20	Shri. A. S. Laturkar HOD, Electronics and Telecommunication Engg., Govt. Polytechnic, Nashik.	Member
21	Dr. S. D. Pable HOD, Electronics and Telecommunication Engg (II Shift), Govt. Polytechnic, Nashik	Member
22	Shri. T. G. Chavan I/C, HOD, Automobile Engg., Govt. Polytechnic, Nashik.	Member
23	Ms. T. J. Mithari I/C, HOD, Dress Design & Garment Manufacturing, Govt. Polytechnic, Nashik	Member
24	Ms. N. P. Adke I/C, HOD, Interior Design & Decoration, Govt. Polytechnic, Nashik	Member
25	Shri. V. H. Chaudhari I/C, Training & Placement Officer, Govt. Polytechnic, Nashik	Member
26	Shri. G. G. Wankhede Controller of Examination, Govt. Polytechnic, Nashik.	Member
27	Shri. S. P. Dikshit Lecturer in Civil Engg., I/C CDC, Govt. Polytechnic, Nashik	Member Secretary

3. Programme wise committee(PWC)

Sr. No.	Name & Office address	PWC Designation
1	Miss. N. P. Adke Lecturer in Interior Design & Decoration. Govt. Poly. Nashik I/C, HOD, Interior Design and Decoration Dept.	Chairman
2	Miss. V. S. Patil Lecturer, Interior Design & Decoration. Govt. Poly. Nashik	Member
3	Miss. S. R. Kothawade Lecturer, Interior Design and Decoration, Govt. Poly. Nashik	Member
4	Ms. N. S. Kewate (Gillurkar) HOD, Interior Design and Decoration, K.T.H.M. College, Nashik.	Member
5	Shri . Y. T. Mahajan 5, Kamal Residency, Patil Lane No. 4, College Road, Nashik	Member
6	Shri. Chandrashekar Patil 5, Archit Regency, Opp. Nav Rachana High School, Savarkar Nagar, Nashik	Member
7	Shri. Pramod U. Wayse Deputy Secretary (T), MSBTE, Regional Office, Osmanpura, Aurangabad- 431005.	Member
8	Shri . S. P. Dikshit Lect., Civil Engg. Dept., Incharge CDC, Govt. Polytechnic, Nashik.	Member secretary

4. PROGRAMME CURRICULUM DEVELOPMENT COMMITTEE

Institute Level Curriculum Development Cell

Sr. No.	Name of the Faculty	Designation
1	Prof. D. P. Nathe	Principal, Government Polytechnic, Nashik
2	Shri. R. N. Vaidya	Head of Civil Engineering Department and Academic co-ordinator, Government Polytechnic Nashik
3	Shri. S. P. Dikshit	CDC Incharge, Lecturer in Civil Engineering, Government Polytechnic, Nashik
4	Dr. N. L. Patil	Lecturer in Civil Engineering, Government Polytechnic, Nashik.
5	Dr. S. V. Bhangale	Lecturer in Electrical Engineering, Government Polytechnic, Nashik.
6	Dr. S. J. Gorane	Lecturer in Mechanical Engineering, Government Polytechnic, Nashik.
7	Shri. N. N. Thakare	Lecturer in Plastic Engineering, Government Polytechnic, Nashik.

Department Level Committee

Sr. No.	Name of the Faculty	Designation
1	Miss. N. P. Adke.	I/C H.O.D. IDD Dept., Lecturer in Interior Design & decoration. Govt. Poly. Nashik
2	Miss. V. S. Patil.	Lecturer Interior Design & decoration. Govt. Poly. Nashik

NITTTR Committee

Sr. No.	Name of the Faculty	Designation
1	Prof. R. G. Chouksey	Dean Student Welfare, Department of Vocational Education and Entrepreneurship Development, NITTTR, Bhopal.
2	Dr. Nishith Dubey	Professor, Department of Vocational Education and Entrepreneurship Development, NITTTR, Bhopal.

Contributors to Course Curriculum Development

Sr. No.	Name of the Faculty	Designation
1	Dr. A. R. Thete	Consultant. Director Center For Development of Leadership in Education Pvt. Ltd. Aurangabad.

Sr. No.	Name of the Faculty	Designation
2	Interior Design and Decoration Department, Government Polytechnic Nashik	
	Miss. Navita Pundlik Adke.	I/C Head of Department
	Miss. Vishakha Sanjay Patil.	Lecturer in Interior Design & Decoration
	Mrs. Megha Hemant Butte.	Lecturer in Interior Design & Decoration
	Miss. Sayali Raghunath Kothawade.	Lecturer in Interior Design & Decoration
	Miss. Dipika Dilip Chavan.	Lecturer in Interior Design & Decoration
	Miss. Anuja Ashok Patil.	Lecturer in Interior Design & Decoration
	Miss. Asha Maruti Kale.	Lecturer in Interior Design & Decoration
	Mrs. Shalaka Kunal Yeolekar	Lecturer in Interior Design & Decoration
Mrs. Chitra Ankur Kulkarni.	Lecturer in Interior Design & Decoration	
3	Mechanical Engineering Department, Government Polytechnic Nashik	
	Shri. S. P. Muley	I/C Head of Department
	Shri. R. V. Rupavate	I/C Head of Department (second shift)
	Shri. S. D. Sanap	Lecturer in Mechanical Engineering
	Dr. S. G. Gorane	Lecturer in Mechanical Engineering
	Shri. P. S. Kulkarni	Lecturer in Mechanical Engineering
Shri. Y. S. Kokate	Lecturer in Mechanical Engineering	
4	Other Departments, Government Polytechnic Nashik	
	Shri. P. G. Kochure	Workshop Superintendent
	Dr. K. V. Nemade	Controller of Examination, Lecturer in Automobile Engineering
	Dr. D. D. Lulekar	Lecturer in Electrical Engineering
Dr. S. V. Bhangale	Lecturer in, Electrical Engineering	
5	Science and Humanities Department, Government Polytechnic Nashik	
	Shri. S. M. Shinde	Lecturer in Mathematics
	Mrs. A. S. Salunkhe	Lecturer in Mathematics
	Shri. C. N. Pagare	Lecturer in Chemistry
	Shri. S. A. Padwal	Lecturer in Physics
	Shri. R. P. Landage	Lecturer in English
	Mrs. A. N. Patil	Lecturer in Chemistry
	Mrs. Y. S. Patil	Lecturer in Physics
	Mrs. P. S. Joshi	Lecturer in English
Mrs. K. S. Shinde	Lecturer in Chemistry	
Dr. Mrs. K. D. Talele	Lecturer in Physics	

Certificate

The curriculum of the programme has been revised in the year 2016, as per the provision made in curriculum development process of Government Polytechnic, Nashik. This is the **outcome based Curriculum of Diploma in Interior Design and Decoration programme**, which shall be implemented from academic year 2016-17.

Verified by

Department Level CDC Representative
Government Polytechnic, Nashik

Head of Department
Interior Design and Decoration
Government Polytechnic, Nashik

Incharge, Curriculum Development Cell
Government Polytechnic, Nashik.

Principal
Government Polytechnic, Nashik.