



UTTARAKHAND BOARD OF TECHNICAL EDUCATION
JOINT ENTRANCE EXAMINATION AND TRAINING, RESEARCH DEVELOPMENT CELL, DEHRADUN
STUDY AND EVALUATION SCHEME FOR DIPLOMA PROGRAMME

BRANCH NAME – INTERIOR DESIGN

SEMESTER – V

Subject Code	Subject	L	T	P	T O T	EVALUATION SCHEME						Total Marks	Credit Point
						Internal		External					
						Theory		Theory		Practical			
						Max Marks	Max Marks	Max Marks	Hrs.	Max Marks	Hrs.		
Period/Weeks		Max Marks	Max Marks	Max Marks	Hrs.	Max Marks	Hrs.						
135004	Estimating, Costing and Specification	5	2	-	7	25	-	75	2.5	-	-	100	4
135001	Basics of Event Decor	-	-	7	7	-	50	-	-	100	3.0	150	4
135003	Computer Aided Rendering - II	-	-	8	8	-	50	-	-	100	3.0	150	6
135005	Interior Design - IV	2	-	10	12	-	100	175	**12.0	50	-	325	10
135002	Basics of Landscape Design	3	-	7	10	-	50	100	3.0	25	2.5	175	6
135052	Industrial Exposure (Assessment at Inst.Level)+	-	-	-	-	-	25	-	-	-	-	25	1
135053	Industrial Training	4 Week, done after IV Sem				-	25	-	-	25	3.0	50	3
015054	General Proficiency (Disc/ Game/ SCA/NCC/NSS) #	-	-	4	4	-	25	-	-	-	-	25	1
Total		10	2	36	48	25	325	350	-	300	-	1000	35

General Proficiency will comprise of various co-curricular activities like games, hobby clubs, seminars, declamation contests, extension lectures, NCC, NSS and cultural activities, elementary mathematics, GS & G.K. etc.

+ Industrial Exposure compulsory at minimum 2 industries or Department.

Note:- 1- Each period will be 50 minutes. 2- Each session will be of 16 weeks. 3- Effective teaching will be at least 12.5 weeks.

** External theory paper will be continue for two days i.e. 6 hrs each day out of total 12 hrs

Branch Code - 13



**FIFTH SEMESTER
INTERIOR DESIGN**

ESTIMATING, COSTING AND SPECIFICATION

L	T	P
5	2	-

Subject Code : 135004

RATIONALE

Diploma holders in Interior Design are supposed to prepare material estimates for various interior works. In addition, they must have basic knowledge regarding ESTIMATING, COSTING AND SPECIFICATION.

DETAILED CONTENTS

1. Introduction to quantity surveying and its importance. Duties of quantity surveyor. **(5hrs.)**

2. **Types of estimates** **(5hrs.)**
 - a) Preliminary estimates
 - b) Plinth area estimate
 - c) Cubic rate estimate
 - d) Estimate per unit base
 - e) Detailed estimates
 - f) Stages of preparation – details of measurement and calculation of quantities and abstract

3. **Measurement** **(15hrs.)**
 - a) Units of measurement for various items of work as per BIS:1200
 - b) Rules for measurements
 - c) Different methods of taking out quantities – centre line method and long wall and short wall method

4. **Preparation of Detailed and Abstract Estimates from Drawings.** **(15hrs.)**
 - a) Interior of a residential building

5. **Calculation of quantities of materials for different kinds of** **(15hrs.)**
 - a) Flooring
 - b) False ceiling
 - c) Partitions

- d) Painting and polishing
- e) Wall (surface treatments)
- f) Paneling, texture etc.
- g) Furniture items, light fixture, murals etc.
- h) Furnishing like curtain, blinds

6. Analysis of Rates

(15hrs.)

- a) Steps involved in the analysis of rates. Requirement of material, labour Sundries, contractor's profit and overheads
- b) Analysis of rates for finished items when data regarding labour, rates of Material and labor is given: Different types of
- c) Flooring
- d) Partitions
- e) Painting and polishing
- f) Paneling, texture etc.
- g) Furniture items, light fixture, murals etc.
- h) Furnishing like curtain, blinds

7. Specifications

(10hrs.)

General and detailed specifications of:

- a) General specification 1st, 2nd, 3rd and 4th class buildings
- b) Detailed Specification of various items of interiors like different types of flooring, false Ceiling, partitions, panelling etc.

8. Procedure for works

- a) Classification of works: Original, Major, Repair, Annual repair, Contract, Tender, Tender notice, Earnest money and Security money.
- b) Measurement book: Entries in measurement book, Preparation of bills, Checking of measurement and Standard measurement book.

INSTRUCTIONAL STRATEGY

This is an applied engineering subject. Teachers are expected to provide working drawings for various civil works and students be asked to calculate the quantities of materials required for execution of such works. Teachers should conceptualize making analysis of rates for different items of works. It will be advantageous if students are given valuation reports for reading.

RECOMMENDED BOOKS

1. Pasrija, HD; Arora, CL and S. Inderjit Singh, “Estimating, Costing and Valuation (Civil)”, Delhi, New Asian Publishers
2. Rangwala, BS; Estimating and Costing”. Anand, Charotar Book Stall
3. Kohli, D; and Kohli, RC; “A Text Book on Estimating and Costing (Civil) with Drawings”, Ambala Ramesh Publications
4. Chakraborti, M; “Estimating, Costing and Specification in Civil Engineering”, Calcutta Dutta, BN; “Estimating and Costing

L	T	P
-	-	7

Subject Code : 135001

RATIONALE

Decoration or event décor is necessary for setting the mood, framing the emotion and importance of the event. From crepe paper streamers to professionally- designed displays of color and beauty, decorations generally work within a theme determined by event sponsors and coordinators, setting the stage for the bulk of the event proceedings.

DETAILED CONTENTS

1. Basic knowledge of semi permanent materials

Introduction, name of samples, cost uses such as

- a) Boards (particle board, sun board, MDF board, etc)
- b) Drapes (curtains, upholsteries, net etc)
- c) Flowers (dry, natural)
- d) Floorings carpets, linoleum sheets, etc
- e) Flex boards, POP, sand, mud, thermacol etc

Exercise-1: Make a material sample file in A3 size with sketches/ pictures with cost.

2. Basic knowledge of permanent and load bearing structures.

- a) Load bearing walls
- b) Treabated style
- c) Arch
- d) Dome
- e) Vaults
- f) Modern load bearing structure
- g) MS column beam
- h) Steel column, girders etc structure
- i) Trusses, space frame etc

Exercise-2: Make models of above structures in various materials.

3. Do survey on any one of the following.

Site area= 3500 Sq ft.

- Social Events:-
 - a) Wedding
 - b) Anniversaries
 - c) Religious (festive)
- Entertainment Events:-
 - a) Award
 - b) Music/dance concert
- Education/academic Events:-
 - a) Award
 - b) Music/dance concert
- Craft and creativity Events:-
 - a) Trade fair
 - b) Arts and crafts fair

Exercise-3: Make a model of above on scale

INSTRUCTIONAL STRATEGY

1. Emphasis will be on minor aspects of live event including marriages , parties , concerts in different scenarios .
2. Special focus on the material usage and Structural aspects of the Hall building and decoration.
3. Students will have to go under group studies, site visits/model making for understanding the importance of lighting, semi permanent material and flow of human traffic.

L	T	P
-	-	8

Subject Code : 135003

RATIONALE

- To introduce various software to the students helping them in completion of their text/report etc.
- To develop and understanding of software assisting in 3 dimensional design.

DETAILED CONTENTS

1. Use & management of sketch-up

- Model setting and managers- colors and materials- entities- making input and output-technical information- applications.
- Lighting, cameras and render effects, environment mapping, fogs and atmospheres.

Exercise-1: Take any 2BHK flat/house for 3d modeling.

Exercise-2: Render above 3d modeling.

Exercise-3: Major project will be followed under sketchup rendering

2. Use of photo editing software

- Photoshop interface, creating and saving images, basic image editing, Photoshop tool box and tools, using layers, special effects.

3. Introduction to use of page maker

- Familiarizing the use of scanners, printers, plotters their hardware and other related systems.

4. Working drawing: Take any 2 bhk residence for working drawing. The drawing requirements are:-

1. Foundation level or center line plan
2. Layout plan
3. Elevation
4. Section
5. Electrical plan

6. Kitchen detailing
7. Toilet detailing
8. Door- Window schedule
9. Plumbing plan
10. Wall detail

NOTE:

1. There will be only practical exam. No theory exam of this subject
2. Make a file on A4 size paper.

L	T	P
2	-	10

Subject Code : 135005

RATIONALE

The objective of this course is to develop the ability to design and execute residential interiors. This particular course aims at preparing plans, elevations, section and details of a residence. Emphasis will be placed on residential precedents, design process, human factors and detailing and presentation techniques.

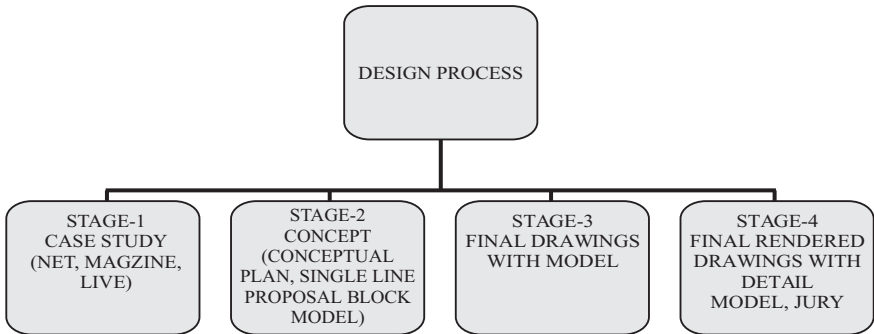
DETAILED CONTENTS

DESIGN PROBLEM

Design a residence of atleast 3BHK spreading over 2 floors covering an area of approx 3500 Sq ft.

METHODOLOGY

1. SYNOPSIS
2. DESIGN SUBMISSION



**Internal as well as external evaluation will be based on above four stages performance.

3. Detailing to do in-depth on layout design.

- a) Entrance
- b) Furniture
- c) Wall treatment
- d) Window treatment
- e) Lighting

Final Drawings

4. To present the final drawings in A3 size and convenient scale The presentation will include the following Presentation drawings colored and rendered:
 - a. Layout plans
 - b. Sections with wall & window treatment details
 - c. Isometric or perspective views
 - d. Furniture details
 - e. Flooring layout
 - f. Ceiling layout
 - g. Lighting layout
 - h. Sample boards
5. Set of working drawings.
6. Project report with model.

Minimum number of sheets required=15

Note:

- No theory paper in this subject. Relevant theory should be taught along with studio work.
- Site visits and market surveys will be carried out.
- Submission should be taken in four stages on pre defined dates.
 1. stage one-case study(after the three weeks of project introduction)
 2. stage two-concept finalization & pencil drawing(six week after I stage)
 3. stage three-final drawings(two weeks after the II stage)
 4. stage four- model with rendered drawings(one week after the IIIstage)

RECOMMENDED BOOKS

1. Times Saver Standard
2. Bar and Restaurant Interior Structure by Lorraine Farrell
3. Cafes and Restaurants by Laura Andreini
4. Magazines and Journals

L	T	P
3	-	7

Subject Code : 135002

RATIONALE

The interior designer must be mindful that the primary function of most interior environment is to serve people rather than to grow plants. Plants materials must be able to bear the environment created for human comforts. Further the basic knowledge of elements & principal of landscape design are essential to understand the inside–outside space relationship.

DETAILED CONTENTS

1. INTRODUCTION: Definition, Grading, Elements (natural, man-made and artificial), Principles of landscaping (Form, Symmetry, Balance, Texture, Color, Contrast, Proportion, Scale, Focus, Rhythm, Aesthetics, Simplicity).

Exercise-1: Elements of landscape design. (01 Sheet)

Exercise-2: Principles of landscape design. (01 Sheet)

2. CLASSIFICATION: Soft Landscaping (Plants, Trees etc.) and Hard Landscaping (Fences, Paving, Decks etc.)

Exercise-3: Free hand sketches of plan and elevation of trees, plants, shrubs, herbs, creepers etc. (04 Sheets)

3. CONSTRUCTION DETAILS: Sketches of plan, elevation and section of each of the following:- (10 Sheets)

- a) Paving showing material and pattern.
- b) Water body showing water effects. For eg- Free flowing, cascading, spouting, free falling etc.
- c) Outdoor lighting fittings and fixtures
- d) Outdoor seating's (along the wall, planters etc.)
- e) Garden steps and edges
- f) Drain
- g) Fences
- h) Built in planter
- i) Swing
- j) Water harvesting

4. Relationship of Landscape and Climate.

- a) Orientation
- b) Sun control and wind control by plants
- c) Microclimate and Human comfort

Exercise-4 Free hand sketches of above.

(01 Sheet)

5. Propose a landscape design for following spaces implementing the relationship of landscape and climate.

- a) Terrace Garden
- b) Home Garden
- c) Hotel lobby (hard landscaping) (Approx. area-15-20 sq. m) scale-1:20

The drawing requirements are:-

- Conceptual Plan. (01 Sheet)
- Proposed Landscape Plan. (01 Sheet)
- Section. (01 Sheet)
- View. (01 Sheet)
- Details- as per drawing. (01 Sheet)

6. Prepare a Herbarium File of plants with following details of each example. (At least 15nos.)

- a) Sample of plant (origin in nature/photos/sketches)
- b) Name
- c) Size
- d) Growth Habit
- e) Texture
- f) Color

INSTRUCTIONAL STRATEGY

Effort should be made to procure audio-visual material of case studies relevant to the contents of the subject. Field visits can be arranged to the places like FRI, LOCAL NURSERY etc. Independent assignments for drawing & case studies followed by viva voce may be given to the students.

RECOMMENDED BOOKS

1. Landscape Architecture by Symonds published by MC. Graw Hill book
2. Urban Landscape Design by Garnett Eckko published by MC. Graw Hill book
3. Landscape design that save energy by Anne Simon & Marc Shiller
4. Flowering trees of India and beautiful gardens by ms Randhava
5. Landscape design- a practical approach by Leory g. hanaebaum



LEARNING OUT COMES AND MEANS OF ASSESSMENT

BRANCH NAME – INTERIOR DESIGN

SEMESTER – V

S.NO.	Title of Subject/Unit	Learning Outcomes	Means of Assessment
1	Estimation, Costing & Specification	<ul style="list-style-type: none"> • Must have knowledge of latest building/interior materials & their units of measurement. • Able to make abstract/detailed estimate of furniture/interior work/finishing work. 	Reports on- <ul style="list-style-type: none"> • Construction site, hardware shops, building/interior materials shops. • Estimation and costing of small interior spaces/furniture projects.
2	Basics of Event Decor	<ul style="list-style-type: none"> • Knowledge of semi permanent decoration/construction materials and its uses. 	<ul style="list-style-type: none"> • Model making • Material sample boards • Exhibition surveys
3	Computer Aided Rendering - II	<ul style="list-style-type: none"> • Able to make and render 3D projects using lighting, cameras, environmental mapping and atmospheres. 	<ul style="list-style-type: none"> • Reports • Presentation drawings
4	Interior Design - IV	<ul style="list-style-type: none"> • Able to design and draft simple residential projects with working drawings. 	<ul style="list-style-type: none"> • CAD drawings/sheet work • Model making • Case study
5	Basics of landscape Design	<ul style="list-style-type: none"> • Able to do small landscape projects 	<ul style="list-style-type: none"> • Reports/sheets on • Interior plants • Soft & hard Landscaping materials • Construction techniques • Site Survey