

B. Voc. in Interior Design

Fifth Semester

HERITAGE AND VERNACULAR STUDIES

Aim

The objective of this course is to make students aware of the importance of heritage sites, study and reflect on vernacular architecture, usage of local materials, technologies and sustainable strategies employed in making of such structures. Students will explore the context of heritage spaces, monuments, and culturally significant spaces and critically evaluate the potential for reuse or conservation. Students will study global and local examples of heritage interiors throughout history and prepare a research report. Documentation of an Interior Space with complete measured drawings, photographs and finding the potential for reuse.

Expected Learning Outcomes

At the end of the course, the student is expected to be able to:

1. Define the basic and technical terms used in Heritage and Vernacular structures.
2. Analyze case studies and understand the importance of study of heritage sites, conservation and restoration.
3. Able to document a heritage/vernacular building in the form of a research report and through detailed drawings.
4. Understand the importance of local materials and sustainable strategies used.
5. Understand the building services and how contemporary building functions and services be incorporated at heritage sites.

Learning and Teaching Strategy

The course is delivered via face-to-face mode and online classes; Classes will consist of lectures, heritage site visits, discussions, presentations, case studies, exercises, project reviews, Individual and team works.

Course Content

Unit I: Introduction to Heritage and Vernacular terminologies, structures and spaces

Introduction to the basic terminologies and understanding the importance of heritage sites. Study of various types of Vernacular and Heritage Architecture/ Interiors and develop an understanding on meaning and relevance of such spaces.

Unit II: Study of Heritage Structures: Case Studies and Literature review

Study the cultural history, heritage studies and conservation of built heritage. Conduct local Case Studies and global Literature studies of such structures and interior spaces. Understand geographic, climatic and cultural aspects of Heritage and Vernacular Buildings and spaces.

Unit III: Study of Material, Sustainable techniques and methods used in Heritage and Vernacular Projects

Study of local materials and sustainable techniques in context to heritage and vernacular sites. Understand material lifecycle analysis and its role in creation of Vernacular Architecture/ Space. Study of Building Services and sustainable strategies implemented in the project. Finding alternative ways of incorporating modern building functions, services, use of alternative materials with minimal intervention with the existing structure.

Unit IV: Project- Measured Drawing and Documentation

Measured drawing of a space inside a Heritage/Vernacular structure. Study of construction details and preparation of high quality as built drawings, graphically represented in the form of technical detailed drawings. Documenting interior and architectural elements through photographs and detailed drafted drawings.

Suggested Assessment Scheme

Assessment 1: Case Studies/ Literature Studies of Heritage & Vernacular Projects	30%
Assessment 2: Material Study and Life-cycle analysis Report	30%
Assessment 3: Measured drawing and Details of Architecture/Interior Space	40%

References

Required Texts

Meena, B.R. (2009) Heritage of Rajasthan: Monuments and Archaeological Sites. New Delhi: Aryan Books International.

Webber, W. and Yannas, S.(2013). Lessons from Vernacular Architecture. London: Routledge.

C. Mileto, F. Vegas, et al (2014). Vernacular Architecture: Towards a Sustainable Future. London: CRC Press.

Reference Texts

Augustin, S. and Coleman, C. 2012. The designer's guide to doing research. Chichester: John Wiley & Sons.

VisockyO'grady, J. and VisockyO'grady, K. 2006. A designer's research manual. Gloucester, Mass.: Rockport Publishers

Journals and magazines

International Journal of Architectural Heritage

Architectural Review

Architectural Digest

DIGITAL FABRICATION

Aim

The objective of this course is to apply the Digital Fabrication techniques using various software and its application into the design studio projects- residential/commercial/retail. The students will develop their drawing skills, experiment with different medium, and have the opportunity to learn a wide range of illustration and visual communication skills.

Expected Learning Outcomes

At the end of the course, the student is expected to be able to:

1. Use digital fabrication tools, processes and its applications in a creative and effective manner.
2. Analyze case studies and understand the importance of digital fabrication techniques in redefining design in local and global context.
3. Carry out a sustained exploration of complex 3D modelling software through development of prototypes using technology such as 3D printers, routers and laser cutters.
4. Resolve a creative project through digital fabrication tools, coding and integrate the key concepts into knowledge of fabrication techniques in interior spaces.

Learning and Teaching Strategy

The course is delivered via face-to-face mode and online tutorials; Classes will consist of lectures, lab work critiques, discussions, presentations, case studies, exercises, project reviews, Individual and team works.

Course Content

Unit I: Study of executed projects by conducting case studies and literature review

Study of a range of Interior Design projects taking good examples of built projects nationally and internationally. Investigate, compare and contrast the methods of form generation.

Unit II: 3D-Complex forms using Digital Fabrication tools and software.

Explore and experiment with Complex three-dimensional forms using Digital fabrication tools and software. Development of prototypes in labs using advanced machinery like 3D printers, routers and laser cutters.

Unit III: Interior project

Developing a part of Interior Space Project using Digital Fabrication Techniques. (Choose a furniture, partition, ceiling system, etc. from the current ongoing project)

Unit IV: High quality graphical representation

Preparation of high quality graphical representation storyboards and project boards using various digital mixed- media and exhibiting advanced graphical representation skills in the drawings from concept sketches to the final design scheme.

Suggested Assessment Scheme

Assessment 1: Case Studies/ Literature Studies of existing Projects	10%
Assessment 2: Development of Complex 3d- forms	30%
Assessment 3: Interior Project	40%
Assessment 4: High Quality Graphical Representation of Project	20%

References

Required Texts

Bachman, D. (2017). Grasshopper: Visual Scripting for Rhinoceros. US: Industrial Press Inc.Cheng, R. (2015). Inside Rhinoceros 5. Delmar Cengage Learning

Reference Texts

Mitton, M. (2012). Interior Design Visual Presentation: A Guide to graphics, models, and presentation techniques, Wiley & Sons, Inc.

Weblinks:

<https://www.archdaily.com/tag/digital-fabrication>

<https://www.rhino3d.com/6/new/grasshopper>

INTERIOR LANDSCAPING

Aim

To improvise more vivid touches to the themes of landscape and interior scape in the field of interior design and construction.

Expected learning outcomes

At the end of the course, the student is expected to be able to:

1. Know and identify the various types of natural elements like (stones, rocks, -pebbles, water forms, plants and vegetation).
2. Use and application of plants and landscape design interiors like (sculpture, garden furniture, growing greenery and so on).
3. Understand Micro irrigation system for flower arrangement – concept and application.
4. Learn and apply the visual effects of the plant materials on the landscape design and environmental set up and also the importance and application of indoor plants and their visual features fitted for interior design.
5. Develop the concept of indoor and outdoor linkage via spaces, use of spaces for both residential and commercial purposes.

Learning and teaching strategy

The course is delivered via face-to-face mode and online tutorials; Classes will consist of lectures, lab work critiques, discussions, presentations, case studies, exercises, project reviews, Individual and team works.

Course content

Unit I - Interior Landscape Architecture

Types of natural elements - stones, rocks, -pebbles, water forms, plants and vegetation. Elements of interior landscape.

Unit II - Plants & Landscape Design and Interiors

Types of indoor plants; plant characteristics - biology, soil, moisture, light nutrients, atmospheric conditions, growing medium, pests & diseases. Indoor plants in Indian context.

Unit III - Design with Plants

The physical attribute of plants in relation to design. Appearance, functional, visual effects, selection and management of plant material of plants in landscape design and built environment. Design concepts related to use of sculpture, lightings, garden furniture, architectural features and grouping them into meaningful compositions for visual and functional effects.

Unit IV - Landscaping Design Parameters & Different Types of Built Forms

Indoor and outdoor linkage to spaces. Landscaping of courtyards - residential and commercial forms. Indoor plants and their visual characteristics - colour, texture, foliage. Science of maintaining and growing greenery. Flowers in relation to visual perception in various indoor spaces and science of flower arrangement.

Suggested assessment scheme

Assessment 1: Case Studies / Literature Studies of existing Projects	20%
Assessment 2: Class presentations	20%
Assessment 3: Report, PPT or file Submission	30%

References

1.	Intermediate Bonsai	Thomas L. Zane		Backyard Bonsai, Daytona Beach, Florida
2.	Time saver standards for landscape architecture			
3.	Planting design	Theodore D.Walker		VNR Publications New York
4.	Landscaping Principles and Practices	Jack E.Ingels		Ingels,Delmar Publishers.
5.	A Guide to Interior Landscapes	Gerald Robert Vizenor		University of Minnesota Press, 1990
6.	Plant Design	Hacheat, Blan		
7.	An Introduction to Landscape	Laurie, Michael	2nd edition	Prentice Hall, New Jersey, 1986
8.	Beautiful Shrubs	Trivedi. P. Prathiba		Indian council of Agricultural Research. New Delhi, 1990

Evaluation

Continuous assessment of session work may consist of evaluation of individual's writing and presentation skills, project work, power point presentations etc.

PROFESSIONAL PRACTICE

Aim

The learner will be equipped with knowledge and skills needed such as estimating, costing, analyzing rates and processes of tendering for practicing profession of Interior Architecture.

The learner will be equipped with knowledge and skills needed such as management of office along with current practices, codes of conduct required to enhance skills and techniques of managing small and large scale residential and commercial interior projects.

The objective of the course is:

- To develop your skills and knowledge to work in organizations or set up an independent design practice.
- To develop the understanding towards knowledge and skills needed such as management of office along with current practices, codes of conduct required to enhance skills and techniques of managing small and large scale residential and commercial interior projects.

Expected learning outcomes

At the end of the course, the student is expected to be able to:

1. Understand different types of agreements governing design practice & organizational structures, ethics of Interior Design practice & the factors to consider when setting up a design office.
2. Understand mechanisms for arranging finance from banks and financial institutions
3. Create different documents to produce and track to run a design business, develop resume, cover letters, and follow up letters and also to Compose portfolios of projects for exhibition and oral presentations based on industry standards.
4. Carry out a mini-market survey for appropriate employment opportunities or areas of work
5. Develop a business plan for office/practice and Structure proposals for interior design projects
6. Demonstrate knowledge of laws governing design practice and intellectual property rights
7. Demonstrate divergent thinking, independence, pro-activeness, resourcefulness, curiosity, an open mind, perseverance, commitment, and responsibility, depth and self-motivation

LEARNING AND TEACHING STRATEGY

The course is delivered via face-to-face mode and online tutorials; Classes will consist of lectures, lab work critiques, discussions, presentations, case studies, exercises, project reviews, Individual and team works.

COURSE CONTENT

Unit I - Estimating, Costing and Analyzing Rates

Introduction to concept of estimation, costing and rate analysis. Need for estimating, costing and rate analysis.

- Components of estimation, costing and analyzing rates (drawings and specifications, units and modes of measurements, work output, material and labour cost, contingencies, professional fees, indirect costs etc.
- Methods of estimating (lump-sum, work specific, item rate etc.); costing (percentage basis, item rate basis etc) and rate analysis (item rate basis).

- **Note:** Students are also expected to visit exhibitions, material manufacturers units, and ongoing interior sites, attend seminars and presentations of consultants and vendors related to interior profession.

Unit II - Tender and Tendering

- Introduction, definitions and Tender types.
- Tendering Procedure: Tender document preparation, types of invitation (public notice, private invitation and negotiation), floating of tender, opening and award of tender.
- Aspects of Tender: Units of measurement and modes of measurements; specifications of raw material (introduction only), schedule writing.
- Contents of Tender Document: Undertaking from contractor, prequalification of tender, general and special conditions of tender, bill of quantities, general specifications, material specification, special specification, set of working drawings.
- Contractual Procedures: Work order letter and acceptance letter, Interim bills and final bills, bills certifications.

Unit III - Career Opportunities and Professional Ethics

- Avenues for professional practice including advantages and limitations
- Professional Ethics
- Codes of conduct and responsibility towards clients, fellow professionals, profession, contractors, suppliers, other consultants and the society.
- Entering the profession.

Unit IV - Office and Interior Project Management

- Working of interior design studio and ideal office structure, distribution of work, authority, duties and responsibilities, reporting etc.
- Work ethics: Acts applicable, basis for professional fees and scales of fees, accounting, maintenance of books of accounts and records.
- Basic principles of management and application to interior designing projects.
- Introduction to Bar Charts, Gantt chart, PERT / CPM.

Students are also expected to visit exhibitions, material manufacturers units, and ongoing interior sites, attend seminars and presentations of consultants and vendors related to interior profession.

Suggested assessment scheme

Assessment 1: Case Studies / Literature Studies of existing Projects	30%
Assessment 2: Class presentations	30%
Assessment 3: Report and PPT	40%

References

1.	Dynamics of Entrepreneurial Development and Management	Vasanth Desai		Himalaya Publishing House
2.	Entrepreneurial Development	N.P.Srinivasan & G.P. Gupta		Sultanchad & Sons.
3.	Essentials of New Product Management	Urban, Hauser, and Dholakia, N		
4	Entrepreneurship and Innovation Concepts, Contexts and Commercialization	Robin Lowe and Sue Marriott, Enterprise		
5	Project Management	Harvey Maylor		Macmillan India Ltd.

6	Professional Practice (Estimation & Valuation),	Roshan Namavati		
7	Architectural Detailing in Residential Interiors	Roshan Namavati		
8	Professional Practice in Interior Design	C M Pitrowski		Van Nostrand Reinhold
9	A Guide to Business Principle and Practices for Interior Designers	Harry Siegel, CPA, Alan Sigel		Whitney library of design
10	Contract Interior Finishes	William R. Hall		Whitney library
11	Construction Materials of Interior Design	William Rupp		Whitney library
12	Entrepreneurship development in India	Gupta C.B, and Srinivasan N.P		Sultan Chand & Sons, New Delhi, 2004
13	Sales Management	Chunawalla S.A		Himalayan Publishing House, New Delhi, 1991
14	Project Management and entrepreneurship	Vasant Desai		Himalaya Publishing House, New Delhi, (2000).
15	Entrepreneurship	David H.Moll		Prentice Hall of India, New Delhi, 1999. Frank Jerkins, Advertising, Prentice Hall of India, New India, 2000

Evaluation

Continuous assessment of session work may consist of evaluation of individual's writing and presentation skills, project work, power point presentations etc.

PRODUCT SOURCING & DEVELOPMENT

Aim

The objective of this course is to introduce interior products and accessories and understand about their sourcing.

Expected Learning Outcomes

At the end of the course, the student is expected to be able to:

1. Understand purpose and relevance of surface application on exteriors and interiors.
2. Identify selection, types, care and maintenance of products.
3. Discuss the application of physical properties and behavioral components in Interior Design.

Learning and Teaching Strategy

The course is delivered via face-to-face mode; Classes will consist of lectures, lab work critiques, discussions, presentations, case studies, exercises, project reviews, Individual and team works.

Course Content

Unit I: Definition, meaning and concept of interior products and accessories. Types - Functional and decorative. Selection and arrangement of products and accessories. Related experience - Collecting pictures of products and accessories

Unit II: Design with a focus on functionality, ergonomics, aesthetics, multiple usages. Design aspects of accessories. Selection of pictures, Types of pictures, framing and hanging law of margin in picture framing, sculpture, antiques. Related experience - designing pictures for framing as accessories.

Unit III: Moods- definition, types of moods- cheer, joy, romance, excitement, reading. Placement of accessories in different rooms of an interior and its impact on the moods of an interior - bedroom, study room, living room, dining room, children's room and entertainment room. Related experience - Arrangement of accessories according to the moods

Unit IV: Basic concepts of lighting design- design objectives, design parameters, qualitative & quantitative evaluation of lighting systems. Different types of Lamps– Its characteristics, Applications and classification.

Unit V: Market study of interior products, accessories & technology. Case studies, research reports on particular product source & development.

Suggested Assessment Scheme

Assessment 1: Case study/ Literature Study of existing projects

Assessment 2: Development of complex 2d/3d forms

Assessment 3: Interior project with Integrated Services

Assessment 4: High Quality graphical representation of projects

References

1. J.M. Gordon Jr., Industrial Design of Plastics Products, John Wiley and Sons, 2003.
2. J. Lesko, Materials and Manufacturing Guide: **Industrial Design**, John Wiley and Sons Inc., 2003
3. G. Batter and C. McCarthy, **Sustainable Ecosystem and Built Environment**, Wiley Sussex, 2001.
4. T.E. Graedd and B.R. Allenby, **Design for Environment**, Prentice Hall, New Jersey, 1996.
5. G. Salvendy, (edt), **Handbook of Human factors and ergonomics**, John Wiley and Sons Inc. NY. 1997

DESIGN STUDIO- HOSPITALITY/RECREATIONAL SPACES

Aim

In this semester the learner is expected to enhance their skills of planning of Hospitality spaces and Recreational Spaces with clear understanding and application of functionality, space usage and concept/theme, use of contemporary materials, construction techniques and advanced services required for the design project.

Expected Learning Outcomes

At the end of the course, the student is expected to be able to:

- Understand and process client needs through design interventions and solutions
- Refine the ability to select compatible furnishings and finishes and demonstrate this by way of a mood board and sample board.
- Develop and Understand Interior Design strategies for Design e.g. market influence nodes, behavioral characteristics, gender relationships, traditional crafts, indigenous materials etc. Learn and apply research techniques to arrive at appropriate design briefs and effective design solutions
- Demonstrate professional skills of teamwork, project management, good communication and presentation.

Learning and Teaching Strategy

The course is delivered via face-to-face mode and online tutorials; Classes will consist of lectures, lab work critiques, discussions, presentations, case studies, exercises, project reviews, Individual and team works.

Course content

- The design exercise may include large fine-dining restaurant with partly open-air area with due importance to differently abled user Universal design), for a realistic site. (Carpet Area not less than 150.00 sq. mts)
OR
- Design activity based small to medium sized Recreational space such as Gym, Spa, entertainment zone etc. (Carpet Area not less than 150.00 sq. mts)

Unit I - Design Research

Design Research, Idea Generation, and research documentation, Doodling etc. for Hospitality or Recreational Space.

Unit II - Design Development

Creating the Final drawings for the given interior space including plans, elevations & sections.

Unit III - Technical Details

- Creating the technical detail sheets and the specification sheet.
- Creating the 3D views for the space designed.

Unit IV – Presentation

Final Documentation and Presentation.

Suggested assessment scheme

Assessment 1: Case Studies/ Literature Studies of existing Projects

10%

Assessment 2: Development of Complex 2D / 3d- forms
Assessment 3: Interior Project with integrated services
Assessment4: High Quality Graphical Representation of Project

30%
40%
20%

References

Time Saver Standards for Interior Design	Joseph De Chiara	Latest	McGraw Hill, New York
Worldwide Interiors – International Federation of Interior Architects & Designers,	Rikuyo-Sha	1987	Japan,
Designs for 20th century Interiors	Fiona Leolie	2000	VH Publications, London
Interior Design; The New Freedom	Barbaralec Diamonstein	1982	Rizzoli International Publications, New York,
Interior Colour by Design	Jonathan Poore	1994	Rockport Publishers
How to design a Chair	Design Museum	2010	London: Octopus Books

Evaluation

Continuous assessment of sessional work may consist of sketches, scaled drawings, study models in various materials, case studies, visit reports, power point presentations etc.

Design portfolio should consist of Project Brief, Client profile, Theme Sheet, Measurement Plan/Furniture Layout Plan/ Flooring Layout/ Reflected Ceiling Layout/ Electrical Layout/ Lighting Layout, Sectional Elevations/ Perspective Views).