UNIVERSITY OF RAJASTHAN
JAIPUR

SYLLABUS

Bachelor’s Degree in Design
B.Des. In Interior Design

B.Des. (Foundation) Part-I Exam 2021
B.Des. Part-II Exam 2022
B.Des. Part-III Exam 2023
B.Des. Part-IV Exam 2024
University of Rajasthan  
(B.Des. Industrial Design & B.Des in Communication Design)

B. DES. in INTERIOR DESIGN

There will be 5 disciplines and the students can specialize in one of these disciplines.

1. Bachelor of Design (Industrial Design):
   I. Craft Accessory Design
   II. Fashion Design
   III. **Interior Design**
   IV. Jewellery Design
2. Bachelor of Design (Communication Design):
   I. Graphic Design

**Bachelor of Design (Industrial)**

**Interior Design**

Industrial design discipline in the classical avatar covered a range of design activities such as Jewellery Design, Fashion design, Craft Accessory Design, Interior Design, Industrial Design & Communication Design. In the 21st Century, we at Rajasthan University choose to redefine these Industrial Design subsets as Human Centred Design, Universal Design, Design for Sustainability, Health care Design, Design for societal needs, Heritage design and Way finding Design.

Our design programme stresses on the specific role of a designer that of being for and only about the user and the user’s needs, empathy and environment. The students will be taught critical thinking and the design process to become effective and innovative problem solvers for companies, the community and the consumers.

A range of domains such as nature and form studies, gestalt, semiotics, human factors & ergonomics, materials and processes and systems design will form an array of learning modules through studio tasks, real life projects, workshops projects both individually as well as in teams.

Students typically will start projects by developing ideas and concepts from sketches to making models and finally working prototypes which will be tested in the real world.

Our Industrial Design graduates will be prepared to make a real difference in the world of design as entrepreneurs, employees of design firms as well as of industry and many will also form venture capital firms and some will also set up unique manufacturing hubs.

The pedagogy will consist of a combination of design skills, related theory, material and manufacturing science, social knowledge, communication skills and management principles. Learnings will be through class room projects, assignments as well as exposure to industry via visits, industry immersion of a few weeks and working on live projects with Faculty and outside design experts.
The design programme will start with a common foundation year with the Communication Design students where all the students will be taught basic skills in design thinking and aesthetics, sensitizing their minds to the world around through on and off campus assignments as well as essential learning tools such as sketching, observation, photography, colour, perception, presentation, model making and workshop projects, history of design and a sprinkling of topics from philosophy to social anthropology.

- The specialization courses in the above said areas which will be of 3-year duration. Total duration of the under graduate course will be of 4 years which includes 1 year of foundation course.
- Candidates have to choose their specialization subject while applying for the foundation course.
- Group discussions, seminars, workshop, exhibitions, study tour, visit to museum, galleries, industry visit are compulsory.
- Study tour is compulsory for all the students and they have to deposit additional charges according to the actual expenses must be borne by the students.
- As B Design is a professional course, professionally qualified teachers will be assigned for practical and theory subjects.

Scheme of Exam

(10+2+4) Pattern

Duration of course:

4 Years (Maximum period allowed to complete course: 7 Years from the date of admission)

Medium: Medium of instruction and examination will be English/Hindi.
Eligibility: Candidate must have passed Senior Secondary Examination or equivalent with a minimum of 48% marks or equivalent grades

Passing criterion: For pass at each examination, a candidate shall be required to obtain a minimum of 36% in Theory paper and 40% in Practical.

Successful candidates will be qualified as under:

a) 50% and above but less than 60% marks II Division
b) 60% and above but less than 75% marks I Division
c) 75% marks and above I Division with Distinction
d) Aggregate 40% and above but less than 50% marks Pass

*No Division will be awarded in Part-I, Part-II and Part-III. Division will be awarded only after successful completion of the Four years course in the Final year result.

Course pattern:
a) Foundation (Common for all stream of Design)  1 Year
b) Specialization (after successful completion of Foundation)  3 years

Educational excursions/enrichment outings/activities:

Course will comprise of Group discussion, Seminars, Workshops, Exhibitions, Study tours, Visit to museum, Galleries, Industry visits etc. Visit/Excursion expenses will be borne by student.

Examination pattern: Annual

Qualifying papers: Compulsory papers like General English, General Hindi, Environmental Studies and Elementary Computer Applications may be cleared anytime by the course duration of Four years but clearing of paper is essential to obtain the degree.

Due Papers: Practical papers cannot be carried forward so a student failing in Practical paper will not be promoted to next year.

Attendance eligibility: Minimum 75% attendance is required in Theory and Practical classes individually to be eligible to appear for respective exams.

Seat reservation: As per University of Rajasthan rules

Design course material: Drawing board, Design related software, Art materials, Designing tools etc. will be to be bought by student only.

Assessment pattern:

a) Theory assessment:
   - Each theory paper of 3 hours duration will be divided into 5 Units/Sections
   - Each Unit/Section will have two questions from each of the Units of the Syllabus
   - Student will be required to attempt one question from each unit/section with an internal choice
   - All questions will carry equal marks (20 marks x 5 questions = 100 marks)

b) Practical assessment:
   - Material required for Practical exam will have to be brought by the Student only.
   - Each practical paper of 6 hours duration will comprise of ________ questions divided into ________ units/sections
   - Student will be required to attempt a total of ______ questions selecting at least ______ question(s) from each unit/section.
   - A board/panel of examiners will be formed for Practical examination by University of Rajasthan, which will comprise of an internal examiner from the College who will award from out of 40% marks for submissions, continuous internal assessments etc. and an external examiner who will award from out of 60% marks for Practical exam and viva voce for each Practical paper.
## Distribution of Marks

### B. Des.–Interior Design Foundation Part-I

<table>
<thead>
<tr>
<th>Subject</th>
<th>Max Marks</th>
<th>Min. Pass Marks</th>
<th>Duration of Exam</th>
<th>Teaching Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Communication</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>General Hindi</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>Elementary Computer Application</td>
<td>40 – Practical</td>
<td>14</td>
<td>2 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>60- Theory</td>
<td>22</td>
<td>2 Hrs.</td>
<td></td>
</tr>
<tr>
<td>Elementary Hindi (in lieu of General Hindi for non–Hindi speaking students only)</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
<td>100</td>
</tr>
</tbody>
</table>

### Subjects Optional

| Theory                          | 100       | 36              | 3 Hrs.           | 100            |
| ID-101 History of Art & Design  | 100       | 36              | 3 Hrs.           | 100            |

<table>
<thead>
<tr>
<th>Practical</th>
<th>Internal Max. Marks.</th>
<th>External Max. Marks.</th>
<th>Internal Min.P.M.</th>
<th>External Min.P.Marks</th>
<th>Duration of Exam</th>
<th>Teaching Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID-102 Fundamentals of Design</td>
<td>40</td>
<td>60</td>
<td>16</td>
<td>24</td>
<td>6 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>ID-103 Visualization &amp; Drawing Techniques</td>
<td>40</td>
<td>60</td>
<td>16</td>
<td>24</td>
<td>6 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>ID-104 Material Studies</td>
<td>40</td>
<td>60</td>
<td>16</td>
<td>24</td>
<td>6 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>ID-105 Design Principles</td>
<td>40</td>
<td>60</td>
<td>16</td>
<td>24</td>
<td>6 Hrs.</td>
<td>100</td>
</tr>
<tr>
<td>ID-106 Design Method</td>
<td>40</td>
<td>60</td>
<td>16</td>
<td>24</td>
<td>6 Hrs.</td>
<td>100</td>
</tr>
</tbody>
</table>
GENERAL ENGLISH

(Examination-2021)

Duration: 3 hrs. Max. Marks: 100
Minimum Pass Marks: 36

The syllabus aims at achieving the following objectives:

1. Introducing students to phonetics and enabling them to consult dictionaries for correct pronunciation (sounds and word stress)
2. Reinforcing selected components of grammar and usage
3. Strengthening comprehension of poetry, prose and short-stories
4. Strengthening compositional skills in English for paragraph writing, CVs and job applications.

The Pattern of the Question Paper will be as follows:

Unit A: Phonetics and Translation (20 marks)
(10 periods)

I Phonetic Symbols and Transcription of Words (05)
III Translation of 5 Simple sentences from Hindi to English (05)
from English to Hindi (05)
IV Translation of 05 Words from Hindi to English (2 1/2)
from English to Hindi (2 1/2)

Unit B: Grammar and Usage (25 marks)
(10 periods)

I Elements of a Sentence (05)
II Transformation of Sentences (05)
   a. Direct and Indirect Narration
   b. Active and Passive Voice
II Modals (05)
III Tense (05)
IV Punctuation of a Short Passage with 10 Punctuation Marks (05)
   (As discussed in Quirk and Greenbaum)

Unit C: Comprehension (25 marks)

Following Essays and Stories in Essential Language Skills revised edition compiled by Macmillan for University of Rajasthan General English B. A. /B. Com./B. Sc.

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Candidates will be required to answer 5 questions out of ten questions from the prescribed texts. Each question will be of two (2) marks.

Sujata Bhatt  Voice of the Unwanted Girl
Ruskin Bond  Night Train for Deoli
M.K. Gandhi  The Birth of Khadi
J.L. Nehru  A Tryst with Destiny
A.P.J. Abdul Kalam  Vision for 2020

The candidates will be required to answer 5 questions from an unseen passage.

One vocabulary question of 10 words from the given passage.

Unit D: Compositional Skills  (30 marks)
(15 periods)
I Letters-Formal and Informal  (10)
II CV’s Resume and Job Applications and Report  (10)
III Paragraph Writing  (10)

Recommended Reading:
Singh, R.P. Professional Communication. OUP. 2004
Judith Leigh. CVs and Job Applications. OUP. 2004
Quirk and Greenbaum: A University Grammar of English Longman, 1973

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नोट: 36 से कह अंक लाने पर छात्रों की सूचीन्त्र नहीं किया जाएगा। इस प्रस्त---पत्र में प्राप्त अंकों को
भेंगा निर्धारण हेतु नहीं जोड़ा जाएगा।
अंक विवाह - प्रस्त---पत्र में दो भाग होगें - 1. साहित्य खण्ड - 2. व्यक्तिगत खण्ड। साहित्य खण्ड में
दो भाग होगें - गद्द भाग एवं पद्ध भाग। प्रत्येक खण्ड के लिए 50 अंक निर्धारित है।

50 अंक

c  दो व्याख्या पद्ध से (प्रत्येक में विकल्प देना है) 5 x 2 = 10 अंक
x  दो व्याख्या पद्ध से (प्रत्येक में विकल्प देना है) 5 x 2 = 10 अंक
g  आलोचनात्मक प्रस्त---पत्र से (विकल्प देना है) 7 1/2 x 2 = 15 अंक
dh  आलोचनात्मक प्रस्त---पत्र से (विकल्प देना है) 7 1/2 x 2 = 15 अंक

साहित्य खण्ड - 'क' - गद्द-पद्ध की निर्धारित रचनाएँ

1. कहानी - प्रेमचन्द - वदेभ भाई साहब
2. संस्कृति - कर्नाटक मिश्र \"प्रमाणकर\" व गलियाँ के ज्ञान की उन लहरों में
3. रेखाचित्र - समस्त सेडीनिया - रामन
4. विज्ञान - अग्निकांड नाहड़ा - राजस्थान की सांस्कृतिक धरोहर
5. व्यंग्य - शरद जोशी - जीएफ पर बसाए हुए लघु
6. पर्यावरण - अनुपम मिश्र - आज भी खड़े हैं ताज़ाग

पद्ध भाग: (कबीर ग्रंथावली से सं. स्थापत्य दास)

1. कबीर - साही लं - रुद्रदेव की अंग - 7,12,26,30
2. सुरदास सुरसागर सार - सं. डॉ. धीरेन्द्र दास
3. तुलसीदास - विनम्र तविजिका, भी-आर-एस, गोस्वामी व पं श्री - 87,89,90,156,157
4. मौर्य - पदवाली लं - नसीराबाद शामी पं सं - 1,3,4,5,10
5. रोमन - रोमन धार्मिक समाजदर्श विधानविधान मिश्र, गोविंद राजपूत
6. मैसूरीवारुण गुंज - मेगुराळ, दम रामण लाई मते हैं (गोविंद-साकेट के नाम संख्या में)
7. सुभाषिन्देन्दु पद्ध - नौका विद्वान
8. सुरिखान द्रिपाय दिसाल - वह जोड़ी वर्तमान
9. सुंदरदास तहसील नामपत्र विद्वान अंबेडकर विद्वान
10. सामाजिक सिद्ध सिद्धक - वर्णा, शर्मा हेतू
खण्ड – 'ख'
व्याकरण/साहित्यिक हिंदी खण्ड

1. निबन्ध लेखन – ७ व्या सीमा 300 शब्द
2. कार्यालयी लेख – शासकीय – अद्वैतकारिक पत्र, कार्यालय झापन, विज्ञापन एवं
   कार्यालय आदेश, अधिसूचना, पृष्ठांक के 4 x 2 = 8 अंक
3. संरचना – 4 अंक
4. पल्लवन – 5 अंक
5. शब्द निर्माण प्रविधि – उपसर्ग, प्रत्यय, संधि, समास
6. शब्द शुद्धि एवं वाक्य शुद्धि – 5 अंक
7. मुहावरे एवं लोकायत – 5 अंक
8. पारिभाषिक शब्दावली – 5 अंक
9. शब्द के प्रकार – संज्ञा, सर्वनाम, विशेषण, क्रिया एवं क्रिया विशेषण – 5 अंक

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ENVIRONMENTAL STUDIES

Examination-2021

Scheme of examination

<table>
<thead>
<tr>
<th>Time</th>
<th>Min Marks</th>
<th>Max. Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 hrs</td>
<td>36</td>
<td>100</td>
</tr>
</tbody>
</table>

This paper will contain 100 multiple choice questions. Each question will carry 1 mark. Students should be encouraged to visit places of Environmental Importance including Natural and Manmade Habitat.

Note:

1. The marks secured in this paper shall not be counted in awarding the division to a candidate.
2. The candidates will have to clear this compulsory paper in three chances.
3. Non-appearing or absence in the examination of compulsory paper will be counted as a chance.

Unit 1: The Multidisciplinary nature of Environmental studies

Definition, scope and importance- Relationship between Environmental Studies and other branches of science and social sciences.

Need for Environmental awareness, Environmental education in present day context.

Unit 2: Natural Resources and Challenges

a. Natural resources and associated problems, Classification of resources: renewable resources, non-renewable resources, classes of earth resources, resources regions: Definition and criteria, resource conservation.

b. Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.

c. Water resources: Use and over-utilization of surface and groundwater, floods, drought conflicts over water, dams-benefits and problems.

d. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

e. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticides problems, water logging, salinity, case studies.

f. Energy resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.

g. Land resources: Land as a resource, Land degradation man induced Landslides, soil erosion and desertification.

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• Role of an individual in conservation of natural resources.
• Equitable use of resources for sustainable lifestyles.

Unit 3: Ecosystems, Concepts, Structure, Functions and Types
• Concept of an ecosystem
• Structure and function of an ecosystem
• Producers, consumers and decomposers
• Energy flow in the ecosystem
• Ecological succession
• Food chains, food webs and ecological pyramids
• Introduction, types characteristics features, structure and function of the following ecosystem:
  a. Forest ecosystem, Tropical Temperate and Alpine Ecosystem
  b. Grassland ecosystem and Their Types
  c. Desert ecosystem with emphasis on Thar Desert
  d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) and Wet Lands

Unit 4: Biodiversity and its conservation
• Introduction – Definition, genetic, species and ecosystem diversity
• Biogeographically classification of India
• Value of biodiversity : consumptive use, productive use, social ethical, aesthetic and option values
• Biodiversity at global, National and local level
• India as a mega-diversity nation
• Hot-sport of biodiversity
• Threats to biodiversity: hab.iat loss, poaching of wildlife, man-wildlife conflicts
• Endangered, Threatened and endemic species of India
• Conservation of biodiversity. In-situ and Ex-situ conservation of biodiversity
• Red Data Book

Unit 5: Environmental Pollution and Control Measures
Definition
• Causes, effects and control measures of:
  a) Air Pollution
  b) Water Pollution
  c) Soil Pollution
  d) Marine Pollution

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e) Noise Pollution
f) Thermal Pollution
g) Nuclear Hazards
   • Solid waste management: Causes, effects and control measures of urban and industrial wastes
   • Role of an individual in prevention of pollution
   • Pollution case studies
   • Disaster management: floods, earthquake, cyclone and landslides

Unit 6: Social Issues, Environment, Laws and Sustainability

- From Unsustainable to Sustainable development
- Urban problems related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies
- Environmental ethics: Issues and possible solution.
- Climate change, global warming, acid rain ozone layer depletion, nuclear accidents and holocaust. Case studies
- Wasteland reclamation.
- Consumerism and waste product.
- Environmental Protection Act.
- Air (Prevention and Control of Pollution) Act
- Wild life protection Act
- Forest Conservation Act
- Biological Diversity Act
- Issues involved in enforcement of environmental legislation
- Public Awareness.

Unit 7: Human Population and the Environment

- Population growth, variation among nations
- Population explosion-Family Welfare Programme
- Environment and Human health
- Human Rights
- Value Education
- HIV/AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and human health
- Case Studies

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Suggested Readings:-


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Elementary Computer Applications

Maximum Marks - 100 (Main University Examinations)
Theory : Max. Marks -60
Practical : Max. Marks - 40

Each Candidate has to pass in Theory and Practical Examinations separately.
Question paper for Elementary Computer Applications. (Compulsory paper-
common for B.A./B.Sc./B.Com. Part-I) be so set that it has 120 multiple choice
questions (Bilingual) of ½ marks each. The question paper will be of duration of 2
hours. The examinees will have to give their answers on OMR Sheet only to be
provided by the University whose evaluation will be done based on OMR Scanning
Technology. Further the practical examination for this paper will be of 40 marks
and its duration will be of 2 hours.

Unit – I

Introduction to Information Technology: Evolution and generation of computers,
type of computers, micro, mini, mainframe and super computer. Architecture of a
computer system: CPU, ALU, Memory (Ram, Rom families) cache memory, input
/output devices, pointing devices.

Concept of Operating system, need types of operating systems, batch, single user,
multi-processing, distributed and timeshared operating systems, introduction of
Unix, Linux, Windows, Window NT. Programming languages Low level and high
level languages, generation of languages, 3 GL and 4 GL languages. Graphic
User Interfaces.

Unit – II

Word Processing tool: Introduction, Creating, Saving, Copy, Move and Delete.
Checking Spelling and Grammar. Page Layout, interface, toolbars, ruler, menus,
keyboard shortcut, editing, Text Formatting, insert headers and footers, Bullets
and Numbering, Find and Replace etc. Insert Table and Picture. Macro, Mail
Merge.

Power Point: Creating and viewing a presentation, managing slide shows
navigating through a presentation using hyperlinks, advanced navigation with
action setting and action buttons. Organizing formats with Master Slides applying
and modifying designs adding graphics, multimedia, and special effects.

Unit - III

Electronic Spreadsheet: Worksheet types of create and open a worksheet.
Entering data, text, numbers and formula in a worksheet inserting and deleting cells,
cell formatting, inserting rows and columns in a worksheet formatting worksheets.
Using various formula and inbuilt function. Update worksheet using special tools
like spell check and auto correct setup the page.

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And margins of worksheets for printing. Format the data in the worksheet globally or selectively, creating charts. Enhance worksheets using charts, multiple worksheets-concepts.

Unit - IV

The Internet - History and Functions of the Internet, Working with Internet, Web Browsers, World Wide Web, Uniform Resource Locator and Domain Names. Uses of Internet, Search for Information. Email, Chatting, Instant messenger services, News, Group, Teleconferencing, Video Conferencing, E-Commerce and M-Commerce.

Manage an E-mail Account, E-mail Address, configure E-mail Account, log to an E-mail. Receive E-mail, Sending mails, sending files an attachments and Address Book, Downloading Files, online form filling. I-Service - E-Banking and E-Learning.

Unit - V


Network Security - Risk assessment and security measures, Assets and types (data, applications, system and network). Security threats and attacks (passive, active), types and effects (e.g. Identity theft, denial of services, computer virus etc.). Security issues and security measures (Firewalls, encryption/decryption), Prevention.

Question Paper pattern for Main University Practical Examination Max Marks: 40

Practical

The practical exercises will be designed to help in the understanding of concepts of computer and the utilization in the areas outlined in the theory syllabus. The emphasis should be on practical usage rather than on theoretical concepts only.

The practical examination scheme should be as follows

- **Three Practical Exercise (including Attendance & Record performance)** 30 marks
  - Operating system
  - MS Word
  - MS Excel
  - MS Power Point
  - Internet
- **Viva Voce** 10 marks

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बी.ए. प्रथम वर्ष : प्रारंभिक हिंदी

अंको का विभाजन
1. पुस्तकें पर आधारित प्रश्न 50 अंक
2. व्याकरण से संबंधित प्रश्न 24 अंक
3. रचना से संबंधित प्रश्न 26 अंक
   (क) लोकोक्तियों गुहावरे  
   (ख) पत्र लेखन अथवा निबंध

पाठ्यक्रम
1. गद्य संग्रह
2. व्याकरण: शब्द विचार, वाक्य विद्यास, वाक्य खण्ड, पद क्रम का ज्ञान तथा इनमें होने वाली सामान्य तुलनाओं का ज्ञान।
3. (क) मुहावरों व लोकोक्तियों का प्रयोग, वाक्यों में रचित स्थानों की पूर्ति, सन्नाटा दिखाने वाले शब्दों का अर्थ भेद अथवा वाक्यों में प्रयोग  
   (ख) पत्र लेखन अथवा निबंध

पाठ्य पुस्तकें:
1. गद्य-संग्रह-राष्ट्रीय गौरव के चिन्ह- डॉ. हरिकृष्ण देवसरे  
   प्रकाशक-नेशनल पुंजिलिंग हाउस, नई दिल्ली

याकरण एवं रचना:
1. अधुनिक हिंदी व्याकरण तथा रचना - लेखक कृष्ण विकल  
   प्रकाशक-नेशनल पुंजिलिंग हाउस, नई दिल्ली
2. सुधार व्याकरण एवं रचना-समाधान-शक्तित हदद-संशोधनकर्ता-डॉ.अच्छा प्रसाद सुनन  
   प्रकाशक - श्रीमान नेहरा एन्ड कंपनी, आगरा
-101: History of Art & Design (Theory)  

Max. M: 100  
Min. P. M: 36

Aim
The aim of this unit is to encourage an understanding of the social, psychological, cultural, historical and commercial factors which underpin all visual arts theory and practice across the spectrum of subject specialisms.

Learning outcomes
- Understand influences on art and design activities and outcomes through the interpretation and analysis of information
- Be able to assess, interpret and evaluate information
- Be able to evaluate and present conclusions.

Course content
Unit-I: Influences of Art and Design Movements, Cubism, Dadaism, Surrealism
Unit-II: Abstract Expressionism, Minimalism, Pop Art, Renaissance, Baroque, Bauhaus, Rococo,
Unit-III: Art Nouveau, Futurism, Impressionism and Post Impressionism,
Unit-IV: Arts and Crafts, Gothic, Historical Art and Design Developments,
Unit-V: Contemporary Art and Design Developments.

Reference
5. Sivarama Murthy, (1997), Art of India, Harry N Abrams, NY
1D-102: Fundamentals of Design (Practical)

Aim
To make students see, make and appreciate the basic design concepts. The first level includes the vocabulary of design and principles of composition. This level includes 3D composition and study of Volumes.

Learning Outcome
- Student will be able to understand basics of design concepts.
- Student will be able to understand design & principles of composition & 3D compositions.

Course Contents
Unit I: Elements of design, Texture and patterns in design,
Unit II: Colour basics, colour theory, colour schemes,
Unit III: Isometry in design,
Unit IV: Nature drawing, Human figure drawing, object drawing,
Unit V: 2D geometry, 2D mark making techniques, 2D visual communication techniques, Use of formal elements in 2D visual communication, 3D geometry, 3D making techniques, Communicating design ideas using 3D making techniques, Use of formal elements in 3D visual communication.

Reference


ID-103: Visualization & Drawing Techniques (Practical)

Aim
The aim of this course is to understand the method of visualizing and drawing from nature, cast and product drawing.

Learning Outcome
- Student will be able to understand the methods & techniques of visualization & drawing.
- The student would be exposed to appreciation of drawing different products.

Course Contents
Understand the techniques of drawing such as pen and ink sketching; pencil sketching; pencil colour sketching etc.; for drawings from nature, cast and product drawings; method of representing positive and negative spaces; light and dark tones etc.

Reference
- Dodson B., (1990), Keys to Drawing, North Light Publications, Cincinnati.
I.D-104: Material Studies (Practical)

Internal Max. M: 40  
Internal Min.P. M: 16  
External Max. M: 60  
External Min.P. M: 24

Aim
Learners will be introduced to a brief history and introduction to 3D materials, tools and processes and made aware of the range of possibilities of different materials in their 2D and 3D application to design. This may be done through lectures / PPT presentations / swatches/samples.

Learning Outcome
- Student will be able to understand the properties of different material.
- Student will be able to understand the techniques, process terminology and tools of materials.

Course Contents
Material exposure could range from paper, fabrics, glass, metals, metal foils, plastics, acrylic, rubber, wood- natural/manmade, foam, Styrofoam, sponge, leather, Rexene, clay, Plaster of Paris, adhesives etc.

Techniques, Process terminology and Tools can cover a range of methods like – cutting, sawing, carving, cutting, welding, drilling, joinery, polishing, constructions, mould making, modelling, casting, gluing, stitching, embroidery, weaving, tying, dying, surface embellishments and manual and mechanical tools used for such explorations.

Reference
- Building material Author Mr. G. C. Sahu & Joy Gopal.
- Building material Author Bhavi Kittti.
- Weaving reference books of Textile Technology
- Maria Dolors Ros Frijola, The Art & Craft of Ceramics
ID-105: Design Principles (Practical)

Aim
The aim of this unit is to enable learners to develop knowledge and understanding of the issues that have informed debate on the purposes and processes of design.

Learning outcomes
- Understand the relationship between form and function
- Understand the principles of cultural and contextual association
- Be able to develop concepts through the exploration of materials, techniques and processes
- Be able to develop concepts by the analysis of the needs of end-users.

Unit content

Reference
ID-106: Design Method (Practical)

Aim
This unit aims to give learners opportunities to develop skills and knowledge in the development of new products or services in design pathways.

Learning outcomes
1. Know the phases of the design development cycle
2. Be able to plan a project using the design development cycle
3. Be able to use imagination and innovation in the development of a product
4. Be able to propose design improvements to the production process.

Unit content

Reference
- How Fashion Works by Gavin Waddell Blackwell
- Francis D. Ching – Design Drawing Publisher Wiley
- Thomas E. French- Graphics Science & Design
## Distribution of Marks

### B. Des - Interior Design Part-II

<table>
<thead>
<tr>
<th>Subject Theory</th>
<th>Max Marks</th>
<th>Min. Pass Marks</th>
<th>Duration of Exam</th>
<th>Teaching Hours</th>
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<td>ID-201: Theory of Materials</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
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<td>ID-202: Basic Construction</td>
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<td>ID-207: Computer Aided Design (Auto CAD)</td>
<td>20</td>
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</table>
ID-201: Theory of Materials (Theory)

Max. M: 100
Min.P. M.: 36

Aim
This unit intends to equip the students with through knowledge of materials being used for interior projects and works. Particularly students will get knowledge and useful information about materials characteristics and their appropriateness of use. Emphasis should be mainly on environment friendly materials and their applications. Use of recycled materials and reuse of materials shall be encouraged. This unit intends to equip the students with through knowledge of materials being used for interior projects and works. Particularly students will get knowledge and useful information about materials characteristics and their appropriateness of use.

Unit Contents
Unit I:
A. CLAY
1. Bricks
   a) Types, Qualities & Properties
   b) Manufacturing (not for examination)
   c) Application
2. Terracotta
   a) Types, Qualities & Properties
   b) Manufacturing (not for examination)
   a) Application
3. Ceramic
   a) Types, Qualities & Properties
   b) Manufacturing (not for examination)
   b) Application

Unit II:
B. STONES
   a) Types, Qualities & Properties
   b) Processing
   c) Application
C. MORTAR LIME CEMENT
   a) Types, Qualities & Properties
   b) Processing
   c) Application (like Terrazzo, Mosaic, Cast: Stone etc)
D. Concrete
   a) Types of concrete
   b) Types of coping/ shapes of coping
   c) Concrete blocks
   d) RCC – Introduction & Concept for lintels & chajja

Unit III:
E. TIMBER
   i. Types of Timber

25
Used for furniture or interiors
Used for construction / structure
Properties & defects in timbers
Introduction & purpose of seasoning
Timber Product
- Plywood, Block -Board, Particle Board, MDF, Fire Boards
- Laminates – types & textures, thickness etc.
Fibre Glass
- Qualities, Properties & Types
- Manufacturing
- Processing & Application

Unit IV:
G. FIXTURES & FINISHES
- Paints
- Polishes
- Textured finishes
- Wall Papers
- Cladding materials
- Types of plastering & finishes
- Upholstery, fabrics, curtain, venetian blinds, vertical blinds
- Carpets, Vinyl flooring, rubber, plastic, nylon etc

H. Metals
Ferrous & Non-ferrous metals like Aluminium, Brass, Copper, Mild Steel, Galvanized Iron, Stainless Steel etc.
- Quality, Properties & Types
- Surface treatments like anodizing, powder coating, specialized coating etc.
- Applications

Unit V:
I. Artificial Materials
- Acrylic plastic, polycarbonate, polyurethane
- Artificial woods, Eco friendly and Recycled materials

J. Materials for Lighting
- Types for wires, conduits, distribution boards, mini circuit breakers earth leaked circuits breakers specifications
- Light fittings
- Decorative fittings
- Special effect lightings like neon, fibre optics, flash etc.

K. Materials Specialty
- Water Proofing
- Fire Fighting & Fire Prevention
- Acoustical
- Thermal Insulation
- Light weight construction materials / reuse of materials

L. Materials for Sanitation and Plumbing
- Different Plumbing Materials
  - Properties, Uses, Fittings & Fixture Applications
- Different Sanitation Materials

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Learning outcome
Collection of actual materials with study and through observation, understanding their properties, characteristic and strength. Knowledge and skills acquisition by conducting seminar on use of such materials and their application techniques.
The Implementation Strategy will consist of various methods like problem identification and alternative solution, self-study, demonstration and actual site visits with discussion. It will further include design consideration of various furniture units to be given importance on.

a) Study of subject and of materials museum and use of the same in the practice, preferably during actual site visits.
b) Conduction carpentry workshops for understanding detailed and micro construction of furniture with various alternative materials.
c) Demonstrating carpentry joinery through models
d) Collecting and studying for deeper understanding of the details of interior construction related various hardware and their proper applications with uses.
e) Market survey, study and understanding of construction techniques and practice in interior design.

Reference
- Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and methods of
ID-202: Basic Construction (Theory & Practical)

Max. M: 100
Min. P. M.: 36

Aim
This unit intends to equip the students with through knowledge of materials along with techniques of their use in construction of various furniture items and interior elements and structures. Through this subject, the students will develop an insight in to the knowledge and skill required for interior construction practices.

Unit Contents

Unit I:
A. Masonry
1. Brick Masonry
   Different types of Bonds in various thickness / Corners
2. Stone Masonry
   a) Various types of stone masonry
   b) Dry Rubbled
   c) Random Rubbled
   d) Ashlar fine
   e) Ashlar chamfered

Unit II:
Structures – framed and load bearing structures
   a) Basic concept, differentiations and limitation for construction special care to be taken while demolition (without damaging existing structure)
   b) Introduction of foundation

Unit III
B. Opening in Masonry work
   Lintels – various types
   a) Timbers
   b) Brick
   c) Stone
   d) Steel
   e) RCC (lintels with projections chajja)

Unit IV:
Arches in bricks & Stones – Various shapes and section Practice oriented exercise

Unit V:
C. Joinery Details
Timber Construction – with consideration of environment
   i. Various joints in Timber and their applications
   ii. Introduction to various fasteners: nails, screws, nuts and bolts rivets etc.
   iii. Various methods of fastening: wielding, brazing, gluing & pasting etc.
Learning outcome

The Implementation Strategy will consist of various methods like problem identification and alternative solution, self-study, demonstration and actual site visits with discussion. It will further include design consideration of various furniture units to be given importance on.

a) Study of subject and of materials museum and use of the same in the practice, preferably during actual site visits.

b) Conducting carpentry workshops for understanding detailed and micro construction of furniture with various alternative materials.

c) Demonstrating carpentry joinery through models.

d) Collecting and studying for deeper understanding of the details of interior construction related various hardware and their proper applications with uses.

e) Market survey, study and understanding of construction techniques and practice in interior design.

Reference

ID-203: Basic Drawing & Drafting (Practical)

Aim
This unit intends to equip the students with concept and principles of Basic Design pertaining to Interiors. It will develop the skills in elements of design, colour, texture, anthropometrics, planning of residences, which are required in planning of the interior of residences.
This unit intends to equip the students with through knowledge of various projection drawing to scale including various kinds of view and perspectives. These Graphics concepts and Perspectives assists designer the designer in better visualization and transferring his/her imagination on the paper and then finally to field practice.
The subject intends to equip the students with through knowledge of various projection drawings to scale including various kinds of view and perspectives. These Graphics concepts and Perspectives assists the designer in better visualization and transferring his/her imagination on to the paper and then finally to field practice.

Unit Contents
- Introduction & Importance of Interior Design
- Principles of Design
  - Structural Design, Decorative design with characteristics and examples
  - Symmetry, Balance, Harmony, Scale & Proportions, Rhythm, Colour, Emphasis etc
- Elements of Design
  - Line, Form, Texture, Light, Space, Pattern, Colour
- Drawing Presentation
  - Presentation of various Furniture items including plants in Plan & Elevation
- Presentation Techniques
  - Pencil Rendering
  - Colour Rendering
  - Plain
  - Pencil (B&W)
  - Pen & Ink
  - Colour Pencil
  - Water Colour
  - Photo / Fuji Colour
- Ergonomics & Anthropometrics
  - Introduction to Ergonomics
  - Introduction to Anthropometrics
- Study of lines
- Study of surfaces
- Study of volumes with various gradation
- Lettering technique
- Solid Geometry
  - Cube
- Rectangle
- Cone
- Prism etc.
- Pyramids
- Polygon
- Tetrahedrons

- Scale Drawing
  - Use of scales & proportions
  - Measure drawing

- Study of orthographic projections
  - Plans
  - Elevations
  - Sections

- Views
  - Isometric view
  - Axonometric view

- Perspective View
  - One Point (measuring point method)
  - Two Point (measuring method)

**Learning Outcome**

a) Assignment based practice reading for interpretation and presentation with proper/appropriate scale.

b) Critical observation and study of presentation by means of various rendering techniques of various elements in Interior Design.

c) Study of light effects in design elements and presentation of the same.

d) Study of textures and compositions and present the same with technique of drawing.

e) Visualization of 3 dimensions and appropriate presentation of the same with the new methodology through presentation techniques.

f) Preparation of 3D models with proportions and to suit requirements.

b) The implementation strategies will include critical study of photographs, self-search, case studies, and evaluation of articles and problem solving through juries.

c) Photographs from the magazines in respect of Interior, Identifying the various elements there in, with the nam.

d) Appreciations of photographs of Interiors form the magazines related to art forms and giving reasons regarding the emphasis on certain elements through their sizes, shape, form, colour, textures etc. along with the discussion.

e) Study of articles from the magazine with individual remarks/opinions regarding the same or rewriting independently articles.

f) Study of anthropometrics data from books, chart or actual design related items separately.

- Regarding the project studies, case studies of various related topics for interiors will be used. Presentation of data collected will be done by means of seminars/visits/books/visuals. Motivation of inspiration through the works of renowned designers and architects. Critical observation of interior projects for their merits and demerits by means of reading, study of drawings, interpretation and discussion.

- Assignment based practice reading for interpretation and presentation with proper/appropriate scale.

- Critical observation and study of presentation by means of various rendering techniques of various elements in Interior Design.
o) Study of light effects in design elements and presentation of the same
p) Study of textures and compositions and present the same with technique of drawing.
q) Visualization of 3 dimensions and appropriate presentation of the same with the new methodology through presentation techniques
r) Preparation of 3D models with proportions and to suit requirements.

Reference
- Francis D.Ching, Design Drawings, Wiley publishers
- Moris, J.H. Geometrical Drawing for Art Students.
- Francis D. Ching – Architectural Graphics, Wiley publishers, 2002
- Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.
• Bately, Claude. Design Development of India Architecture.
• Bellings, Lance Bowen. Perspective space and Design.
• Conli, Claudius. Drawings by Architects.
• Ernest. R. Norling, Perspective made easy, Dover publications, 1999
• Joseph D, Amelio, Perspective Drawing Hand book, Dover publications, 2004
ID-204: Basic Construction (Practical)

Aim
This unit intends to equip the students with through knowledge of materials along with techniques of their use in construction of various furniture items and interior elements and structures. Through this subject, the students will develop an insight into the knowledge and skills required for interior construction practices.

This unit intends to equip the students with through knowledge of materials along with techniques of their use in construction of various furniture items and interior elements and structures. Through this subject, the students will develop an insight into the knowledge and skills required for interior construction practices.

Unit Contents

Unit I:
A. MASONRY
3. Brick Masonry
4. Stone Masonry
f) Various types of stone masonry
g) Dry Rubbed
h) Random Rubbed
i) Ashlar fine
j) Ashlar chamfered

Unit II:
Structures -framed and load bearing Structures:
c) Basic concept, differentiation and limitation for construction special care to be taken while demolition (without damaging existing structures)
d) Introduction of foundation

Unit III
B. Opening in Masonry work
e) Lintels - various types
f) Timbers
g) Brick
h) Steel
i) Stone
j) RCC (lintels with projections -hajja)

Unit IV
Bricks & Stones- various shapes and section, practice & exercises
Unit-V

ii. J ointery Details

ii. Timber Construction - with consideration of environment

iii. Various joints in Timber and their applications

iv. Introduction to various fasteners: nails, screws, nuts and bolts rivets etc.

v. Various methods of fastening: welding, brazing, gluing & pasting etc.

Learning Outcome

The Implementation Strategy will consist of various methods like problem identification and solution, self-study, demonstration and actual site visits with discussion. It will further include design consideration of various furniture units to be given importance on.

- Study of subject and of materials museum and use of the same in the practice, preferably during actual site visits.
- Conducting carpentry workshops for understanding detailed and micro construction of furniture with various alternative materials.
- Demonstrating carpentry joinery through models.
- Collecting and studying for deeper understanding of the details of Interior Construction related various hardware and the proper applications with uses.
- Market survey, study and understanding of construction techniques and practice in Interior design.

Reference

1O-205: Interior Construction (Practical)

Aim
This unit intends to equip the students with through knowledge of materials along with techniques of their use in construction of various furniture items and interior elements and structures. Through this subject, the students will develop an insight into the knowledge and skills required for interior construction practices.

Unit Contents
- Doors & Windows
  - Types of Doors
    - Battened
    - B V Ledged
    - B L and Braced
    - B L, B & Framed
    - Panelled Door
    - Flush Door
    - Partly Glazed Door
    - Sliding/ Folding Door Accordion Type
    - Bathroom Door Sliding/ folding type
- Types of windows;
  - Casement window
  - Hinged & Pivoted
  - Sliding Window
  - Sliding & Folding
- Staircase
  - Types & Materials
- Floors
  - Types & Materials
- False Ceiling
  - Types -suspended ceilings with concealed lighting arrays & ducting.

Learning Outcome
The implementation strategies will consist of various methods like problem identification and solution, self-study, demonstration and actual site visits with discussion it will further include design consideration of various furniture units to be given importance on.

- Study of subject and of materials anc same in the practice preferably during actual site visits.
- Conducting carpentry workshops for understanding detailed and micro construction of furniture with various alternative materials.
- Demonstrating carpentry journey through models.
- Collecting and studying for deeper understanding of the details of interior construction related various hardware and their proper applications with uses.
- Market survey, study and understanding of construction techniques and practice in interior design.

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Reference

1x-206: interior Design-l (Residential Design Project) (Practical)

Unit Aim
This unit intends to equip the students with concept and principles of Basic Design pertaining to Interiors. It will develop the skills in elements of design, colour, texture, anthropometrics, planning of resources, which are required in planning of the interior of resources.

Unit Contents

Basic Design for Living Units (with built-in-Environmental Consideration)
• Living Room
• Dining Room
• Living-cum-Dining room
• Kitchen-cum-Dining room
• Kitchen
• Master, Children’s, Guest Bedrooms
• Toilets
• Practice oriented Exercise: 9 plate
• Study of Furniture along with costing
  • Fixed & Moveable (Residential & Commercial)
  • Chairs, Bed (single & double), sofa, space dividers, built in furniture, wardrobe, dining table, wall units, curtain types, counters of bars, bank executive tables, conferences etc.
• Study of Services along with Estimation & Costing
  • Plumbing
  • Wiring & Lighting
  • Futuristic Orientation
  • Lifts & Escalator

Learning Outcome
The implementation strategies will include critical study of photographs, self-search, case studies, and evaluation of articles and problem solving through exercises. Photographs from the magazines in respect of Interiors; Identify the various elements therein, with the name.
Appreciations of photographs of Interiors from the magazines related to art forms and giving reasons regarding the emphasis on certain elements through their size: shape, form, colour, textures etc. along with the discussion.
Study of articles from the magazine with individual remarks/opinions regarding the same or rewriting independently articles. Study of anthropometrics data from books, chart or actual design related items separately.
Regarding the project studies, case studies of various related topics for interiors will be used. Presentation of data collected will be done by means of seminars/visits/books/visuals. Motivation of inspiration through the works of renowned designers and architects.

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observation of interior projects for their merits and demerits by means of reading, study of drawings, interpretation and discussion.

Reference

iD-207: Computer Aided Design (Auto CAD) (Practical)

Aim
This unit intends to equip the students with concepts and principle of CAD pertaining to Interior Design using software like AUTOCAD and similar ones.

Learning Outcome
- The implementation strategy will include practice and total use of all commands relate to windows and AutoCAD for making designs and
- 2D drawings
- Line compositions to be taken Colour compositions, painting in windows
- Drawing simple geometry objects and drafting of room given building / apartment / flat and Bungalows

Unit Contents
- Introduction to AUTOCAD 2D
  o Starting & Closing AutoCAD
  o Screen Layout and Mouse operation
  o Pull Down Menu, Tool Bars, Command Window
  o Drawing file operation
  o Creating Entities - Line - Arc - Circle
  o Erase - Redraw
  o Entity Selection
  o Draw Toolbars
  o Hatch Patterns
  o Working with Text & Fonts Stiles
  o Modify Tool Bar
  o Editing with Grips
  o Poly line and Editing of Poly line
  o Entity Tools
  o Using Arrays
  o Zoom options
  o Making Blocks and Insertion of objects
  o Specifying Units and Limits
  o Understanding Scale factors
  o Using Grip and Snap Modes
  o Standard and Properties Bar
  o Creating Assigning, Controlling, working with Layers and Line Types
  o Dimension Menu
  o Enquiry
  o Printing/ Plotting the Drawings
  o Creation of sample drawing
Introduction to AUTOCAD - 3D

- Concept of Evaluation! Thickness
- Use of 3D view point, Tripod and view option
- Top, Side, Front view
- Hide & Shade option
- Dynamic 3D viewing - Perspective View
- Use of 3D Face| 3D polyline | 3 dimension
- Use of UCS & UCS icon
- Edge surface, Ruled surface, Revolution Surface & Tabular Surface
- Wire Frame and Solid Modelling
- Boolean Functions
- Rendering
- Concept of Slides and Scripts
- Model Making
- Use of Layers and Colours in 3D
- Adding Shadows and Materials
- Background Scenes & light effects
- Insertion of Landscape & people
- Export and Import of 3D model to and from 3D Studio
- Sample Project

Reference

- Oscar Riera Ojeda, Lucast Guerre, Hyper realistic Computer Generated Architectural Renderings.
- Giuliano Zampi Conway Lloyd Morgan, Virtual Architecture.
<table>
<thead>
<tr>
<th>Subject Theory</th>
<th>Max Marks</th>
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<th>Duration of Exam</th>
<th>Teaching Hours</th>
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<tr>
<td>a. Product Photography</td>
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<td>b. Fashion Accessory</td>
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<td>d. E-Commerce for Product Life Style</td>
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</tbody>
</table>
1D-301: Services (Theory)  

Max. M.: 100  
Min. P. M.: 36

Aim
This unit intends to equip the students with concept and principles of advanced design pertaining to interiors. It will develop their skills in advanced design and commercial interior including services provided in such commercial centres.

This unit intends to equip the students with concept and principle in advanced design and commercial interior including services provided in such commercial centres.

Unit Contents

Unit I:

a. Lighting  
   Terms like lumen, candle, wring systems & their suitability, types of lighting, types of light fittings & fixtures
b. Telephone & Telecommunication and Local system  
   Different types of electronic (sound equipment)

Unit II:

c. Environmental considerations like energy efficiency, solar energy etc. study pertaining to energy efficiency, solar energy etc.
d. Water Supply & Plumbing Anthropometrics data, clients’ needs / utilities Service Utilities Aesthetics Feasibility in construction

Unit III:

e. Ventilation & Air Conditioning - Change in Temperature & Heating  
   1) Principles of Heating  
   2) Principles of Air-conditioning  
   3) System like window units, Split and central air conditioners
   4) Principles of ducting & distributing

Unit IV:

f. Sound  
   Acoustics - Study of different systems of insulations & sound proofing, use and methods of applications

Unit V:

g. Fire Fighting-  
   Types of fire, Fire fighting equipment and systems
h. Security System - Detection of alarm, close circuit TV  
   Study pertaining to Anthropometrics data  
   clients’ needs / utilities  
   Service Utilities  
   Aesthetics  
   Feasibility in construction

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Learning Outcome

- The implementation strategies will include critical study of photographs, self-search, case studies, and evaluation of articles and problem solving through juries.
- Photographs from the magazines in respect of Interiors, Identifying the various elements there in, with the name.
- Appreciations of photographs of Interiors form the magazines related to art forms and giving reasons regarding the emphasis on certain elements through their sizes, shape, form, colour, textures etc. along with the discussion.
- Study of articles from the magazine with individual remarks / opinions regarding the same or rewriting independently articles.
- Study of anthropometrics data from books, chart or actual design related items separately.
- Regarding the project studies, case studies of various related topics for interiors will be used. Presentation of data collected will be done by means of seminars / visits / books / visuals. Motivation of inspiration through the works of renowned designers and architects. Critical observation of interior project. for their merits and demerits by means of reading, study of drawings, interpretation and Discussion

- The implementation strategies will include critical study of photographs, self-search, case studies, and evaluation of article- and problem solving through juries.
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- Critical observation of interior projects for their merits and demerits by means of reading, study of drawings, interpretation and discussion.

Reference

- Pratap R.M (1988), Interior design principles and practice, Standard Publisher’s distribution, Delhi.
- WWW.Wikipedia.org. Air conditioning
- Poella . L. Leslie, Environmental Acoustics.

[Signature]

Dy. Registrar (Acad.)
University of Rajasthan
JAIPUR
• Burris, Harold, Acoustics for Architect.
ID-302: Estimation & Costing (Theory)

Aim
This unit intends to equip the students with all the procedures of estimation & costing principles of estimating all works of interior design project.

Unit Content
Unit I:
- Regulations and restrictions on various types of new and old works
- Local bye-laws pertaining to interiors and renovation of building
- Procedure from date of enquiry

Unit II:
- Keeping of costs, job-records, alterations to estimates, modifications
- Preparation of schedules and progress charts
- Supervision of sub-trader and sub-contractors

Unit III:
- Confidential information for client or employers
- Encroachment on existing project of author designer in direct competition
- Fee’s scale of charges, commissions and discounts retaining fees, rejection fees

Unit IV:
- Conditions of engagement and terms of contract, alternative agreements, out of pockets expenses, stages of payment, settlement of disputes and arbitrations
- Principles of estimating for all tips of decoration and redecoration works including painting, panelling, partitioning, false ceiling, flooring etc.
- Preparing bill of quantities from Architects or Interior Designers scale drawings and pricing.

Unit V:
- Principles governing new & old work as regards prices
- Exercises on preparation and calling of tenders
- Estimation and schedule of quantities for furniture items
- Estimation of at least one complete interior project should be carried out

Learning Outcome
- Student will be able to know the procedure of estimation & costing
- Student will be able to plan a project using the estimation & costing
- Student will be able to prepare bills, contracts, agreements etc.

Reference
Aim
This unit aims to develop learners' skills and understanding necessary to operate successfully within a commercial exhibition and retail design context.

Unit Contents
- Project (1) small (minor) like shop, office, clinic, cyber café, consulting room, office, window display, including study of energy saving techniques.
- Drawing requirements
  - Measurement sheet
  - Plans – Furniture layout
  - Plans
    - Furniture layout
    - Flooring layout
    - False ceiling layout
    - Plumbing & Sanitation layout
  - Sections, Sectional elevation
  - Perspective views
  - Façade design, awning along with display window
  - Rendering in any medium

Learning Outcome
- Understand the specific requirements of exhibition and retail design
- Be able to develop and communicate design ideas in response to identified needs
- Be able to manipulate materials and processes to meet specified design requirements
- Understand how to work in a professional context.

Reference
- Store Design – William R. Green
- The Retail Store Design & Construction – William Green
Aim
This unit aims to develop skills and understanding of learners who intend to follow careers as model makers in the architectural, interior design, industrial design, media or entertainment industries.

Unit Contents
- Technology: eg mechanics, control, power sources, CAD, CAM, CNC, innovation, new materials
- Principles: eg function, communication, form, purpose, events, advertising, prototype, drawing conventions
- Context: eg physical limitations, size, scale, purpose, film, theatre, video, television, interior design, product design, animation, client brief
- Planning: project management eg scheduling, time management, costings, research, development, testing, refining, communication, resources, facilities
- Design constraints: eg types features, qualities, cost, availability, technology, processes, client, end user, function, purpose
- Technology: eg CAD renders, visuals, designs, samples
- Structures: systems eg geodesics, space structures, stressed skin, tensegrity; features eg struts, ties, beams, loads, reaction, triangulation, tension, compression, torsion; types eg flexible, rigid
- Visual qualities: eg scale, size: static, moving, accuracy, realism, communicating ideas, quality, finish, texture, colour
- Precision: eg component fit, movement, reliability
- Processes: working eg cutting, laser cutting, injection moulding, rapid prototyping, vacuum forming, CAD, CNC, milling, casting, moulding, mould-making, joining, assembling, finishing
- Health and safety: Health and Safety at Work Act; product liability; professional indemnity
- Design management: stages of production eg research, design development, testing, material sampling, re-design, production, quality assurance, promotion, review; costs; budget; consultation eg client, designer, manufacturer, engineer, retailer, end user
- Presentation: eg folios, development drawings, prototypes, samples, renders, visuals, concept sheets, critiques, client meetings
- Legislation: Health and Safety at Work Act; product liability; professional indemnity

Learning Outcome
- Understand the technological principles of model making in a commercial context
- Be able to plan and design a model for commercial production
- Be able to make models to a brief
- Be able to employ professional practice in commercial model making.

Reference
- Model making – Megan Werner
- Model Making conceive, create & convince –Arjan Karsson & Bernard Otte
- Das Architektur Modell
**Course Code:** CAD- 3D MAX, Photoshop, Corel Draw (Practical)

**Internal Max. M:** 20  
**Internal Min. M:** 08  
**External Max. M:** 30  
**External Min. M:** 12

**Aim**
This unit intends to equip the students with throughout knowledge of application of Computer in interiors and efficient working in 3D & 3D Animation and Walk Through

**Unit Contents**
- 3D Studio & Photoshop
- Getting Started
- Using 3D studio
- The Pull Down Menus
- The Icon Panel
- The 2D Sharpener
- Creating Shapes for Lofting in 3D loft
- The 3D Loft
- Importing 2D Shapes for lofting & exports lofted objects into 3D editor
- The 3D Editor
- Creating 3D Models
- Importing AutoCAD Models / 3D lofted objects
- Understanding Vertex / face / Elements / Objects
- Applying materials to objects
- Fixing of lights and use of colours
- Setting Cameras & understanding view ports
- Rendering the image
- Saving & Colour prints of Rendered Image
- The Key Framer
- Understanding Selection sets
- The Material Editors
- Sample Projects
- Photoshop Basic
- Walk Through 3D Animation
- Introduction to Animation
- Animation- The Illusion movement
- Key Framer Commands
- Selection: Geometry
- Hierarchy / Links / Unlinks
- Object Commands
- Light & Camera Commands
- Setting Animation Path
- Rendering Animation
- Display & Time Commands
- The Materials Editors
- Surface Colour
- Mapping
Learning Outcome
Implementation Strategies will include use and regular practice of all related commands of AUTOCAD 3D, 3D studio, Photoshop, Walk through Animations. The generation of drawings and animation should satisfy the client’s requirements and it should ease the planning, design and execution of the interior work.

Reference
- Oscar Riera Ojeda, Lucast Guerre, Hyper realistic Computer Generated Architectural Renderings.
- Giuliano Zampi Conway Lloyd Morgan, Virtu al Architecture.
10-306: Interior Design – III Commercial Project (Practical)

Aim
This unit intends to equip the students with concept and principles of advanced Design pertaining to Interiors. It will develop the skills in advanced design and commercial interior including service provided in such commercial centres.

Unit Contents
Large project (300 sqm to 500 sqm) like Banks, Restaurants, Corporate Offices, Exhibitions, Bars, Pubs & Casinos, Hotels, Motels, Supermarkets, Hospitals etc. Including landscape & special considerations & provision for handicapped persons for circulation & facilities Practical / field / project work etc.

- Drawing Requirements:
  - Measurement Sheet
  - Plans
- furniture layout
- flooring layout
- false ceiling layout
- Air conditioning ducting layout
- Electrical layout
- Layout indicating security system
  - Landscape layouts
  - Sectional elevations
  - Perspective views
  - Rendering in any medium (pencil, Ink, Water colour, poster colour etc.)

Learning Outcome
- The implementation strategies will include critical study of photographs, self-search, case studies, and evaluation of articles and problem solving through juries.
- Photographs from the magazines in respect of Interiors, Identifying the various elements there in, with the name.
- Appreciations of photographs of Interiors form the magazines related to art forms and giving reasons regarding the emphasis on certain elements through their sizes, shape, form, color, textures etc. along with the discussion.
- Study of articles from the magazine with individual remarks / opinions regarding the same or rewriting independently articles.
- Study of anthropometrics data from books, chart or actual design related items separately.
- Regarding the project studies, case, studies of various related topics for interiors will be used. Presentation of data collected will be done by means of seminars / visits / books/ visuals. Motivation of inspiration through the works of renowned designers and architects.
- Critical observation of interior projects for their merits and demerits by means of reading, study of drawings, interpretation and discussion.

Reference

- Rosemary Kilmer, W. Otie Kilmer, Construction: Drawings and Details for Interiors, John Wiley and Sons,
JD-307: Elective (Choose any one) (Practical)

a) Product Photography

Aim
This unit aims to develop learners’ skills and understanding in Product Photography.

Learning Outcome
a) Be able to use space and equipment
b) Be able to use sets, lights and backgrounds.

Course Content
Various aspects of photography including lighting for indoor & outdoor, handling of studio equipment and set planning & composition.

Reference
a) How to Set Up Photography lighting for a Home Studio Kindle Edition by Amber Richards (Author)
b) Photo Studio Photography Kit 3 Light Bulb Umbrella Muslin 3 Backdrop Stand Set

Elective
b) Fashion Accessory

Aim
The aim of this unit to impart intensive training for complete understanding of fashion accessories, techniques and process, product development and quality, market intelligence, management and operational methods.

Learning Outcome
a) Student will be able to understand about fashion accessories.
b) Student will be able to understand the techniques & process of fashion accessories.
c) Student will be able to understand the product development, quality & marketing aspects.

Course Content

Reference
a) Encyclopedia of Fashion Accessories Author
by John Peacock (Author)

Elective

c) Visual Merchandising

Aim
This course would require the students to develop merchandising plan for the women's apparel. The basics of visual merchandising, display windows, planning etc., would be covered in this course.

Learning Outcome
a) Present and coordinate merchandise so that related goods are shown in a unique, desirable, and saleable manner.
b) Apply basic design principles and color theories to the construction of promotional displays and advertising.
c) Understand the basic functions of retail store operations including store location and layout, shopping Centre analysis, retail market segmentation and strategies, and the merchandising mix.
d) Prepare and execute displays for exhibitions and promotional events using the visual dynamics of light as a design element.

Course Content
Merchandising concepts and theories tools and techniques for merchandise display, windows; creative thinking for merchandise display, store layout, display, fashion retailing

Reference

Elective

d) E-Commerce for Product Life Style

Aim
The aim of this unit is to develop understanding of the dynamics of online business and online buying behaviour to create a consumer-oriented online business strategy along with holistic knowledge on product development for E-Commerce platform.

Learning Outcome
a) Student will be able to understand online business sensibilities.
b) The student will be able to understand Global Online Business Industry.
c. The student will be able to understand with the knowledge and skills required to manage the online venture for a long period of sustainable profits, but will also challenge them to achieve career goals by fuelling their passion.

Unit Contents

Reference
- Enterprise Resource Planning System Author Daniel E. O'leary.
- E-Commerce Get it Right! Author Ian Daniel.

(YEAR-4)

Distribution of Marks
B. Des. - Interior Design Foundation Part-IV

<table>
<thead>
<tr>
<th>Subject Theory</th>
<th>Max Marks</th>
<th>Min. Pass Marks</th>
<th>Duration of Exam</th>
<th>Teaching Hours</th>
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<td>ID-401: Entrepreneurship</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
<td>100</td>
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<tr>
<td>ID-402: Brand Development</td>
<td>100</td>
<td>36</td>
<td>3 Hrs.</td>
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<td>2. External Max. M.</td>
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<td>ID-403: Sustainable Design (Eco Design, Social Cause &amp; Environmental Design)</td>
<td>40</td>
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<td>ID-405: Professional Practice (Internship &amp; Industry Mentored)</td>
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<td>40</td>
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55
D-401: Entrepreneurship (Theory)

Max.M: 100
Min.P. M.: 36

Aim
This course would introduce the students to the concept of setting up a small scale industry. The students would be motivated through different activities to identify the entrepreneurial competencies and prepare a business proposal for starting a fashion enterprise of their choice.

Learning Outcome
- Student will be able to understand about entrepreneurship and evolution of entrepreneurship.
- Student will be able to understand creating and starting the venture.
- Student will be able to understand managing, growing and ending the new venture.
- Student will be able to understand entrepreneurship Development and Government.

Course content
Unit I: Introduction to Entrepreneurship - Entrepreneur- meaning, importance, Qualities, nature, types, traits, culture, similarities and economic differences between Entrepreneur and entrepreneur. Entrepreneurship development, its importance, Role of Entrepreneurship, entrepreneurial environment.

Unit II: Evolution of Entrepreneurs - Entrepreneurial promotion, Training and developing motivation factors, mobility of Entrepreneurs, Entrepreneurial change, occupational mobility factors in mobility, Role of consultancy organizations in promoting Entrepreneurs, Forms of business for entrepreneurs.

Unit III: Creating and starting the venture - Steps for starting a small industry- selection of types of organizations.

Unit IV: Managing, growing and ending the new venture - Preparing for the new venture launch-early management decisions Managing early growth of the new venture-new, venture expansion strategies and issues, Going public ending the venture.

Unit V: Entrepreneurship Development and Government - Role of Central Government and State Government in promoting Entrepreneurship. Introduction to various incentives, subsidies and grants, Export Oriented Units, Fiscal and Tax concessions available, Women Entrepreneurs- Reasons for Low numbers or no women Entrepreneurs, their Role, Problems and Prospects.

Reference
*D-402: Brand Development (Theory)  

Aim  
A brand is a philosophy of a designer transformed into value-added products. Generally, consumers recognize brands by names which could be logos or unique colors. A brand successfully makes recognition through coming up with distinct design features such as style, color or use of certain features unique to the brand. Here a student thinks about a very important variable of design called design philosophy which is unique and is thinking how to transform one’s design philosophy into fashion and lifestyle products. Therefore, this part of the project holds maximum importance in this assignment.

Learning Outcome  
Towards the completion of this unit a student would think about the brand philosophy and development with above parameters  
The student will be able to develop own brand.

Course Content  
Unit I: Description of brand philosophy  
Unit II: Development of logo using colors and shapes.  
Unit III: Brand competitor studies and market research  
Unit IV: Consumer profiling and market segmentation.

Reference  
- Rethinking Place Branding, Comprehensive brand development for cities and regions, Author Mihalis Kavaratzis – Gary Warnaby & Gregory J. Ashworth.  
- Make a name for yourself Author Robin Fisher Roffer.
Aim

This unit intends to equip the students with concepts & principles of Environment Design, climatology, natural and manmade conditions of environment and other aspects of environmentally conscious and efficient design.

Unit Contents

Relative Study of Earth

1) Earth in the universe Earth & solar system, delineation & seasons, climatic zones (tropical, temperate, polar, desert, highland, etc.) & classification, influence of ocean currents, prevailing winds and solar radiation on the earth's climate, region-wise distribution of fauna and flora
2) Geographical Factors Effecting climate & Indian Climatic Classification Latitude, Altitude, Aspect, Nearness to Sea Six climatic zones & their characteristics, study of Indian subcontinent & its historical origins
3) Global & Local environmental problems Global: warming & climate change, ozone depletion, deforestation, degrading oceans, shelter, urban heat island effect, urbanization, availability of energy and natural resources, air, noise, land and water pollution
4) Study of Ecosystems & their components - Forest, Oceans, Rivers, Ponds, Deserts, Natural cycles such as Hydrological, Carbon, etc. Interdependence of ecosystems

THERMAL COMFORT & PASSIVE DESIGN

1) Thermal Comfort Definition, Variables, Tools to measure such as bioclimatic chart, Meteorological instruments, Psychrometric chart, standards for comfort — day-lighting & ventilation
2) Climate Analysis Solar path diagram, wind rose & wind square, Mahoney tables, solar radiation chart, plotting of bio-climatic chart, analysis of design strategies, study of vernacular architecture
3) Bio-climatic design of architectural elements Design of fenestrations, heat gain calculations, azimuth & altitude, Design for day-lighting

Study of materials and passive design strategies: properties of materials, principles and definitions of natural heat transfer, passive design strategies such as solar chimney, wind towers, courtyards, etc, Case studies & application

ENERGY EFFICIENCY IN INTERIOR DESIGN

1) Energy Efficiency & Conservation Need for energy conservation, ways to conserve energy, basic concepts, carbon credits, Kyoto protocol, renewable sources of energy
2) Energy Efficient Lighting Systems Lighting design principles, equipment, LPD, CCT, Color Rendering Index, Definitions — lumen, Lux, candela, efficacy, etc., circuits, NBC, IESNA, LEED & Eco-housing guidelines
3) HVAC Reduction of heat load, efficient air conditioning, natural systems, CFC free refrigeration systems, ASHRAE / ISHRAE guidelines

Reference

- M.P. Birkett, An appraisal of project work as an educational tool within interior design education at tertiary level and its relation to professional practice, Royal College of Art, 1985.
iD-404: Design Portfolio (Practical)

Aim
Design portfolio is the expression of student to translate themes into design. Here one gets inspired by different themes which could be art movements, sport, historic areas, music, dance, culture, nature, traditions etc. and picks out tangible and intangible elements which are to be used as design elements in the collection. The ability of a designer to exhibit and use design elements is highlighted which is further on translated into projects. A portfolio is an exhibit of the overall knowledge of the student work which he/she has gained through the course of four years. The purpose lies in promoting the skills of students in a single format.

Learning Outcome

Students will present a portfolio of all the files/folders/projects created during the course of study in I to III year. The portfolio should include projects, industrial visit reports, any other projects made during the academic session. The external examiner will evaluate the portfolio and take a viva of the student.

References
Aim
The aim of this unit is to extend learners’ knowledge of professional practices within their specialist area and to relate these to personal goals and career opportunities.

Learning outcomes
- Be able to place themselves and their work in the context of their selected discipline
- Understand their specialist area and the career opportunities available
- Understand how to promote themselves and their work professionally.

Course Content
Goal setting, Career direction, Responsibilities, Research, Presentation skills, Personal development & Promotional opportunities.

Reference
- Enhancing Professional Practice Author Charlotte Danielson.
1D-406: Dissertation (Practical)

Each student will have to submit a dissertation comprising: minimum 1000 words with Visual material and resource bibliography, conclusion, Public collection etc. under the guidance of the supervisor choosing the dissertation topic preparation and presentation of a written document & visual presentation, practical aspect with 10-to-15 photograph's
The topic of the dissertation will be closely related to regards as a major subject. It's meant to reflect an understanding of the critical, historical and philosophical Issues from the past of present in conclusion and their intellectual sources
theme analysis. The written assignment has to be submitted one week before the final examination of the practical works, which will be submitted in 3 copies duly signed by the Guide and the Head of Department in the prescribed format. The evaluation of the dissertation shall be based on the quality of the Written assignment and the overall performance of the student. The evaluation of the dissertation papers will be conducted by a Board of internal /subject teacher and external examiners.

Industry Exposure

The student would be given an opportunity to visit & understand working environment of different departments of Industry.