



राजस्थान विश्वविद्यालय  
University of Rajasthan

JAIPUR

Syllabus  
of  
Bachelor's Degree in Design  
(B.Des.)  
in  
**INTERIOR DESIGN**

**B.Des. (Foundation)-Part-I Exam. 2018**

**B.Des. -Part-II Exam. 2019**

**B.Des. -Part-III Exam. 2020**

**B.Des. -Part-IV Exam. 2021**

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# University of Rajasthan

(B.Des. Industrial Design & B.Des. Communication Design)

## B. DES.IN INTERIOR DESIGN

There will be 5 disciplines and the students can specialized 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)

I. Craft Accessory Design

II. Fashion Design

III. Interior Design

IV. Jewellery 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 Centered 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

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about the user and the users' 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. Learning's will be through classroom 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 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.
- The entrance qualification for the foundation course will be the passing of the +2 or equivalent examination with minimum 48% marks.
- 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 beard by the students.
- As B Design is a professional course, professionally qualified teachers will be assigned for practical and theory subjects.

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- Scheme of examination: Scheme of examination is annual, the minimum marks required to pass the examination are 36% for theory and 40% for practical candidates securing 75% and above marks will be placed in Distinction. 60% to 74% 1<sup>st</sup> Division. 50% 2<sup>nd</sup> and 40% to 49 pass. The division will be calculated at the final year examination of the specialization course aggregating the marks of all the four years examination.
- If the candidate fails to pass the English, Hindi, Environmental studies and Elementary Computer application papers of the foundation course shall be promoted to next class and the Elementary Computer application but paper must be cleared for a pass in B Design Final Examination.
- No student will be allowed to proceed to the next higher class unless he/she passes the practical examination prescribed for the year.
- A candidate must clear the B Design course within a period of seven years from the date of admission to the first year of the course.
- Each student shall be required to attend not less than 75% lecture & practical held during each year of the course of study.
- Seat reservations are as per university rules.
- Students have to purchase their own Drawing board, Art materials and Tools.

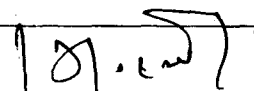
### (YEAR-1)

### Distribution of Marks

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

Subject Compulsory only	Max Marks	Min. Pass Marks	Duration of Exam	Teaching Hours
English Communication	100	36	3 Hrs.	100
General Hindi	100	36	3 Hrs.	100
Environmental Studies	100	36	3 Hrs.	100
Elementary Computer Application	40 - Practical 60- Theory	14 22	2 Hrs. 2 Hrs.	100

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Elementary Hindi (in lieu of General Hindi for non – Hindi speaking students only)	100		36		3 Hrs.	100
<b>Subjects</b>						
<b>Optionals</b>						
<b>Theory</b>	100		36		3 Hrs.	100
ID-101 History of Art & Design						
<b>Practicals</b>	<b>Internal</b>	<b>External</b>	<b>Internal</b>	<b>External</b>	<b>Duration</b>	<b>Teaching</b>
	<b>Max.M</b>	<b>Max..Marks.</b>	<b>Min.P.M.</b>	<b>Min.P.Marks</b>	<b>of Exam</b>	<b>Hours</b>
	<b>arks.</b>					
ID-102 Fundamental of Design	40	60	16	24	6 Hrs.	100
ID-103 Visualization & Drawing Techniques	40	60	16	24	6 Hrs.	100
ID-104 Material Studies	40	60	16	24	6 Hrs.	100
ID-105 Design Principles	40	60	16	24	6 Hrs.	100
ID-106 Design Method	40	60	16	24	6 Hrs.	100

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# GENERAL ENGLISH

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**  
(10 periods)

(20 marks)

- |   |                     |
|---|---------------------|
| 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 <sup>1/2</sup> ) |
| from English to Hindi                                       | (2 <sup>1/2</sup> ) |

**Unit B: Grammar and Usage**  
(10 periods)

(25 marks)

- |                                |      |
|--------------------------------|------|
| I Elements of a Sentence       | (05) |
| II Transformation of Sentences | (05) |

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(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.

Candidates will be required to answer 5 questions of two lines each to be answered out of 10 questions. There would be two questions from the prescribed text. (10)

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 the given unseen passage. (10)

One vocabulary question of 10 words from the given passage. (5)

**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

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## Recommended Reading:

- Sasikumar, V., Dutta and Rajeevan, A Course in Listening and Speaking-I Foundation Books. 2005.
- Sawhney, Panja and Verma eds. English At the Workplace, Macmillan 2003.
- Singh, R.P. Professional Communication. OUP. 2004
- Judith Leigh. CVs and Job Applications. OUP. 2004
- Arthur Waldhorn and Arthur Zeiger, English Made Simple. Upa and Co.
- Gunashekar ed. A Foundation English Course for Undergraduates. Book I, CIEFL, Hyderabad.
- Quirk and Greenbaum: A University Grammar of English Longman, 1973

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नोट : 36 से कम अंक लाने पर छात्रों को उत्तीर्ण नहीं किया जायेगा। इस प्रश्न-पत्र में प्राप्त अंकों को श्रेणी निर्धारण हेतु नहीं जोड़ा जायेगा।

अंक विभाजन - प्रश्न पत्र में दो भाग होंगे - 1. साहित्य खण्ड एवं 2. व्याकरण खण्ड। साहित्य खण्ड में दो भाग होंगे - गद्य भाग एवं पद्य भाग। प्रत्येक खण्ड के लिए 50 अंक निर्धारित हैं।

		50 अंक
क	दो व्याख्या पद्य से (प्रत्येक में विकल्प देना है)	5 x 2 = 10 अंक
ख	दो व्याख्या गद्य से (प्रत्येक में विकल्प देना है)	5 x 2 = 10 अंक
ग	आलोचनात्मक प्रश्न पद्य से (विकल्प देना है)	7½ x 2 = 15 अंक
घ	आलोचनात्मक प्रश्न गद्य से (विकल्प देना है)	7½ x 2 = 15 अंक

साहित्य खण्ड - 'क' :- गद्य-पद्य की निर्धारित रचनाएँ  
गद्य भाग -

1. कहानी - प्रेमचन्द - बड़े भाई साहब  
विजयदान देथा - सिकंदर और कौआ
2. संस्मरण - कन्हैयालाल मिश्र 'प्रभाकर' - बयालिस के ज्वार की उन लहरों में
3. रेखाचित्र - रामवृक्ष बेनीपुरी- रजिया
4. विज्ञान - गुणाकर मुले - शनि सबसे सुन्दर ग्रह
5. निबंध - अगरचन्द नाहटा - राजस्थान की सांस्कृतिक धरोहर
6. व्यंग्य - शरद जोशी - जीप पर सवार इल्लियाँ
7. पर्यावरण - अनुपम मिश्र - आज भी खरे हैं तालाब

पद्य भाग :- (कबीर ग्रंथावली से सं. - श्यामसुंदर दास)

1. कबीर - साखी सं. - गुरुदेव को अंग - 7,12,26,30  
सुमरन को अंग - 10,17,24,26  
विरह को अंग - 2,6,10,18
2. सूरदास सूरसागर सार - सं. डॉ. धीरेन्द्र वर्मा  
- विनय भक्ति पद सं. - 21,33  
- गोकुल लीला पद सं. - 55,58  
- वृंदावन लीला पद सं. - 10,28  
- उद्धव संदेश पद सं. - 77,79
3. तुलसीदास - विनय पत्रिका, गीताप्रेस, गोरखपुर पद सं. - 87,88,90,156,158
4. मीरां - पदावली सं. - नरोत्तम स्वामी पद सं. - 1,3,4,5,10
5. रहीम - रहीम ग्रंथावली संपादक विद्यानेवास मिश्र, गोविन्द रजनीश  
(दस दोहे) (दोहावली) 186,191,211,212,214,218,219,220,223,224
6. मैथिलीशरण गुप्त - मनुष्यता, हम राज्य लिए मरते हैं (गीत-साकेत के नवम सर्ग से)
7. सुमित्रानंदन पंत : - नौका विहार
8. सूर्यकान्त त्रिपाठी निराला - वह तोड़ती पत्थर
9. सच्चिदानंद हीरानंद वात्स्यायन 'अज्ञेय' - हिरोशिमा
10. रामधारी सिंह दिनकर : - विपथगा, समर शेष है

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खण्ड - 'ख'

व्याकरण/व्यावहारिक हिन्दी खण्ड

		50 अंक
1. निबन्ध लेखन	-	शब्द सीमा 300 शब्द 8 अंक
2. कार्यालयी लेख	-	शासकीय - अर्द्धशासकीय पत्र, कार्यालय ज्ञापन, विज्ञप्ति एवं कार्यालय आदेश, अधिसूचना, पृष्ठांकन 4 x 2 = 8 अंक
3. संक्षेपण	-	4 अंक
4. पल्लवन	-	5 अंक
5. शब्द निर्माण प्रविधि	-	उपसर्ग, प्रत्यय, संधि, समास 5 अंक
6. शब्द शुद्धि एवं वाक्य शुद्धि	-	5 अंक
7. मुहावरे एवं लोकोक्ति	-	5 अंक
8. पारिभाषिक शब्दावली	-	5 अंक
9. शब्द के प्रकार	-	संज्ञा, सर्वनाम, विशेषण, क्रिया एवं क्रिया विशेषण 5 अंक

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## 3. COMPULSORY PAPER OF ENVIRONMENTAL STUDIES

Compulsory in I Year for all streams at undergraduate level

### Scheme of examination

Time	Min Marks	Max. Marks
3 hrs	36	100

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.

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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 nonrenewable 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.

- 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-spot of biodiversity
- Threats to biodiversity: habitat 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

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## 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
  - 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:-

1. Chauhan, Surendra Singh. 2001. Biodiversity, Biopiracy and Biopolitics: The Global Perspectives, Kalinga Publications, New Delhi.
2. Chauhan, Surendra Singh. 2004. Environmental Protection and Management: From Stockholm to Rio and After, Kalinga Publications, New Delhi.
3. Diwan A.P. and Arora D.K.1995. Human Ecology Anmol Publication Pvt.Ltd.,New Delhi.
4. Dubey, R.M.1992. Human Ecology and Environmental Education,Chaugh Publications,Allahabad.
5. Goudie,Andrew.The Human Impact.
6. Husain Maxia.1994 Human Geography,Rawat Publication,Jaipur.
7. Johnston, R.J.Ed.1986 Dictionary of Human geography,National Publication,New Delhi.
8. Malik,S.L.and Bhattacharya D.K.1986. Aspects of Human Ecology,Northern Book Center,New Delhi.
9. Mishra,R.P and Bhooshan,B.S.1979.Human Settlements in Asia.Public,Polices and programmes Haritage publisher,New Delhi.
- 10.Nathawat, G.S.1985. Human Ecology,An Indian perspective,Indian Human Ecology Council,Jaipur.
- 11.Russel, Bartrand, 1976.Impact of Science of society Unwin,Publisher,Indian. (paper back).
- 12.Sinha Rajiv, 1996.Gloobal Biodiversity Ina.,Shri publication,Jaipur.
- 13.Sinha Rajiv K., 1994. Development without Desertrction
- 14.Environmentalist,Jaipur. Sinha Rajiv K., 1996.Environmental Crises and Human at Risk,In A Shri Publication,Jaipur.
- 15.Smith, Dlanne, 1984.Urban Ecology,George Allen,London.
- 16.Swarnkar, R.C.1985.Indian Tribes.Printwell publisher,Jaipur.
- 17.Tivy,Joy and O'Hugegreg,1985.Human Impact on the Ecosystem Edinburgh George Allen Boyd.
- 18.United Nations Development Report, 1996.Human Development Report, 1996.Oxford University Press,Delhi.
- 19.Vannathony & Rogers Paul, 1974. Human Ecology and World Development,Flehum Press,New York.

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# 4. Syllabus of Elementary Computer Applications

Work load : Teaching 2 hours per week  
Practical 2 hours per week

Max Marks: 100 (Main University Exam: Theory -60 Marks, Practical- 40 Marks)

Each candidate has to pass in Theory and Practical Examinations separately.

**Main University Examination : Question pattern for Theory Paper** **Max Marks: 60**

**Part – I (very short answer)** consists 10 questions of **one marks** each with two questions from each unit. Maximum limit for each question is up to 20 words.

**Part – II (short answer)** consists 5 questions of **two marks** each with one question from each unit. Maximum limit for each question is up to 40 words.

**Part – III (Long answer)** consists 5 questions of **eight marks** each with one question from each unit with internal choice. Maximum limit for each question is up to 400 words.

## 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 to Unix, Linux, Windows, Windows 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 basics, Create, save 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 formulae and inbuilt functions, Update worksheets using special tools like spell check and auto correct.

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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, E-Services - E-Banking and E-Learning.

#### Unit - V

Social, Ethical and Legal Matters - Effects on the way we: Work Socialise, Operate in other areas, Cyber crime, Prevention of crime, Cyber law: Indian IT Act, Intellectual property, Software piracy, Copyright and Patent, Software licensing, Proprietary software, Free and Open source software.

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

16

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Core Paper-1

**ID-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 specialism's.

**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, Rococco,

**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**

1. R. Nath, (1976) History of Decorative Art in Mughal Architecture, Motilal Banarasidas, Delhi.
2. Urevbee, O.Andrew, (1997) Culture and Technology, UNESCO, Paris
3. Bayer, Patricia, (1990) Art Deco Interiors, Thames and Hudson, Delhi
4. Hartt, Frederiak, (1989) Art: History of Painting, Sculpture, and Architecture, Prentice Hall, NJ

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- Sivarama Murthy, (1997), Art of India, Marvyn N Abrams, NY*
5. ~~Sivarama Murthy, (1997), Art of India, Marvyn N Abrams, NY~~
  6. Nath R, (1980), Art of Khajuraho, Abinav Publications, Delhi.

### Core Paper-2

#### ID-102: Fundamental of Design (Practical)

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

#### 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.

#### Unit Contents

Elements of design, Textures and patterns in design, colour basics, colour theory, colour schemes, isometry in design, Nature drawing, Human figure drawing, object drawing, 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

1. Broomer, Gerald F., (1974), Elements of Design: Space, Davis Publications Inc. Worcester, Massachusetts.
2. Bruce D. Kurty, (1987), Visual imagination- An introduction of Art, Prentice Hall, New Jersey.
3. Hayashi Studio, (1994) Water Colour Rendering, Graphic-Shaw Publishing Co.
4. Richard Rochan, Herald Linton, (1989), Colour in Architectural Illustration, Van Nostrand Reinhold.
5. Robert W. Gill, (1984), Manual of Rendering in pen and ink, Thames and Hudson, London.
6. Wong Wucius, (1977), Principles of three dimensional Design, Van Nostrand Reinhold, NY.
7. Wong Wucius, (1977), Principles of two dimensional Design, Van Nostrand Reinhold, NY.
8. Hanlon, Don. (2009), Compositions in architecture, John Wiley & Sons.
9. Saraswati Bidyanath, (2001), The nature of man and culture: alternative paradigms in anthropology, Indira Gandhi National Centre for the Arts.
10. Bruce. D. Kurty (1987) Visual imagination- An introduction of Art, Prentice Hall, New Jersey.
11. Gill, Robert W, (1984), Manual of Rendering in pen and ink, Thames and Hudson, London.
12. Harh, Fredrick, (1976) Art: A History Painting, Sculpture and Architecture, HN Abrams, NY

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*Hayashi Studio, (1994) Water Colour Rendering, Graphic Sha Publishing Co, Ltd.*  
~~13. Hayashi Studio, (1994) Water Colour Rendering, Graphic Sha Publishing Co, Ltd.~~

14. Hanlon, Don, (2009) Compositions in Architecture, John Wiley & Sons.
15. Saraswati, BAIdyanath, (2001), The nature of man and culture: alternative paradigms in anthropology, Indira Gandhi National Center for the Arts.
16. Brown Tim, (2009), Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, Harper Collins.

### Core Paper-3

#### ID-103: Visualization & Drawing Techniques (Practical)

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

#### 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.

#### Unit 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. The students would.

#### Reference

- Broome F. Gerald, (1974), Elements of Design, Space, Davis Publications Inc., Worcester, Massachusetts.
- Dodson B., (1990), Keys to Drawing, North Light Publications, Cincinnati.
- Mark W., Mary W. (1999), Drawing for Absolute Beginner, F&W Publications, Cincinnati.
- Davis M.L. (1996), Visual Design in Dress, Prentice Hall, Canada.
- Graves M., (1951). The Art of Colour and Design, McGraw-Hill Book Company.

### Core Paper-4

#### ID-104: Material Studies (Practical)

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

#### Aim

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Learners will be introduced to a brief history and Introduction to 3D Material Tools and Process and  
~~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.

#### Unit Contents

Material exposure could range from paper, fabrics, glass, metals, metal foils, plastics, acrylic, rubber, wood- natural/manmade, foam, Styrofoam, sponge, leather, rexine, 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, modeling, casting, gluing, stitching, embroiderv, 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 Kittl.
- Weaving reference books of Textile Technology
- Maria Dolores Ros Frijola, The Art & Craft of Ceramics

#### Core Paper-5

#### ID-105:Design Principles (Practical)

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

#### 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

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Jaipur  
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*Harmony, Contrast, Proportion, Scale, Rhythm, balance, Emphasis, Study of Artist, Study of*  
*Harmony, Contrast, Proportion, Scale, Rhythm, Balance, Emphasis, study of Artists, study of*  
Architects, study of Designers, Textures and Finishes of Hard Material, Textures and Finishes of Soft Material, Nature Photography, Product Photography, Aesthetics, Signs and Symbols, Packaging, Branding & Copywriting.

#### Reference

1. Janice Greenberg Ellinwood, (2010) Fashion by Design, Fairchild Publications.
2. L. Borelli, (2007) Fashion Illustration by Fashion Designers Chronicle Books Ltd., US
3. C. Tatham, J. Seaman, (2007) Fashion Design Drawing Course, Barron's Educational Series.
4. Karl Aspeclund, (2010) The Design Process, Fairchild Publications.
5. Tracy Jennings, (2011) Creativity in Fashion Design: An inspiration Workbook, Fairchild Publications.
6. GJ. Sumathi (2002) Elements of Fashion and Apparel Design, New Age International Publications.

#### Core Paper-6

##### ID-106: Design Method (Practical)

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

#### 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

Writing Design Brief, Developing Ideas, Developing through Experimentation, Reviewing and Evaluating Ideas in Progress. Specialist Materials, Equipments and Techniques. Presenting Work. Developmental Work, Strength and Weakness, Researching on Ideas, Ways of Gathering Ideas, Mind Mapping, Mood Boards, Recording Ideas for the Development Stage, Using Planning Skills, Prototyping, Purpose of an Art and Design Portfolio, Different types of Portfolio, present an art and design portfolio.

#### Reference

- How Fashion Works by Gavin Waddell Blackwell
- Francis D. Ching – Design Drawing Publisher Wiley
- Thomas E., French. Graphics Science & Design

**(YEAR-2)**  
**Distribution of Marks**  
**B. Des.-Interior Design Part-II**

Subject Theory	Max Marks		Min. Pass Marks		Duration of Exam	Teaching Hours
ID-201:Theory of Materials	100		36		3 Hrs.	100
ID-202:Basic Construction	100		36		3 Hrs.	100
Subject –Practical	Internal Max.M.	External Max. M.	Internal Min.P.M.	External Min.P. M.		
ID-203:Basic Drawing & Drafting	40	60	16	24	6 Hrs.	100
<del>ID-204:Basic Construction</del>	<del>20</del>	<del>30</del>	<del>08</del>	<del>12</del>	<del>4 Hrs.</del>	<del>50</del>
<i>Pct-204:Basic Construction</i>	40	60	16	24	6 Hrs.	100
ID-205:Interior Construction	40	60	16	24	6 Hrs.	100
ID-206:Interior Design-I - Residential Design	40	60	16	24	6 Hrs.	100
ID-207: Computer Aided Design (Auto CAD)	20	30	08	12	4 Hrs.	50

**Core Paper – 1**

**ID-201: Theory of Materials (Theory)**


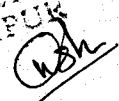
**Max. M: 100**  
**Min.P. M.: 36**

**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 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.

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**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**

Used for furniture or interiors  
Used for construction / structure

**ii. Properties & defects in timbers**

**iii. Introduction & purpose of seasoning**

**iv. Timber Product**

Plywood, Blok –Board, Particle Board, MDF, Fire Boards

**v. Laminates – types & textures, thickness etc.**

**F. Glass**

- a) Qualities, Properties & Types
- b) Manufacturing
- c) Processing & Application

**Unit IV:**

**G. FIXTURES & FINISHES**

- a) ~~Paints~~ Paints
- b) Polishes
- c) Textured finishes
- d) Wall Papers
- e) Cladding materials
- f) Types of plastering & finishes
- g) Upholstery, fabrics, curtain, venetian blinds, vertical blinds
- h) Carpets, Vinyl flooring, rubber, plastic, nylon etc

#### H. 1 Metals

Ferrous & Non-ferrous metals like Aluminum, Brass, Copper, Mild Steel, Galvanized Iron, Stainless Steel etc.

- a) Quality, Properties & Types
- b) Surface treatments like anodizing, powder coating, specialized coating etc.
- c) Applications

#### Unit V:

#### I. Artificial Materials

- a) Acrylic plastic, polycarbonate, polyurethane
- b) Artificial woods, Eco friendly and Recycled materials

#### J. Materials for Lighting

- a) Types for wires, conduits, distribution boards, mini circuit breakers earth leaked circuits breakers specifications
- b) Light fittings
- c) Decorative fittings
- d) Special effect lightings like neon, fiber optics, flash etc.

#### K. Materials Specialty

- a) Water Proofing
- b) Fire Fighting & Fire Prevention
- c) Acoustical
- d) Thermal Insulation
- e) Light weight construction materials / reuse of materials

#### L. Materials for Sanitation and Plumbing

- a) Different Plumbing Materials  
Properties, Uses, Fittings & Fixture Applications
- b) Different Sanitation Materials

#### 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 method like Problem identification and*  
~~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 Construction. 19th ed. Dhanpat Rai Pub., New Delhi. 2000.
- Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd.
- Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
- Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.
- Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.
- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.
- Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
- Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
- Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003
- Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.
- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
- Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.
- S.K. Duggal, Building Materials, Illustrated, A.A. Balkema, 1998

#### Core Paper-2

ID-202: Basic Construction (Theory & Practical)

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

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*This unit intends to equip the student with thorough knowledge of material along with*  
~~This unit intends to equip the students with thorough 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. MASONARY

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 Masonary 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: welding, 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.

*Conducting Carpentry Workshop for understanding detailed and micro construction of*

- 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

- Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
- Moxley R. Mitchell's Elementary Building Construction. Technical Press Ltd.
- Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
- Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.
- Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi.1990.
- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.

#### Core Paper - 3

#### ID-203: Basic Drawing & Drafting (Practical)

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

#### 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 oaper and then finally to field practice.

#### Unit Contents

- Introduction & Importance of Interior Design
- Principles of Design

## *Structural design, decorative design with characteristics and Examples*

- ~~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.
- g) The implementation strategies will include critical study of photographs, self-search, case studies, and evaluation of articles and problem solving through juries.
- h) Photographs from the magazines in respect of Interior, Identifying the various elements there in, with the name.
- i) Appreciations of photographs of Interiors from 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.
- j) Study of articles from the magazine with individual remarks / opinions regarding the same or rewriting independently articles.
- k) Study of anthropometrics data from books, chart or actual design related items separately.
- l) 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.
- m) Assignment based practice reading for interpretation and presentation with proper / appropriate scale.
- n) 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**

- Stephen Kliment, Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.
- Ivo.D. Drpic, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
- Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007

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*Mogali Delgado Yanes and Ernest Redondo Dominguez, Freehand drawing for Architects*

Mogali Delgado Yanes and Ernest Redondo Dominguez, Freehand drawing for Architects and Interior Designers, ww.Norton & co., 2005

- Francis D.Ching, Design Drawing, Wiley publishers
- Moris, I.H.Geometrical Drawing for Art Students.
- Thoms, E.French. Graphics Science and Design, New York: MC Graw Hill.
- Nichols, T.B. and Keep, Norman. Geometry of Construction, 3rd ed. Cleaver – Hume Press Ltd., London, 1959.
- Bhatt. N.D. and Panchal V.M.Engineering Drawing: Plane and Solid Geometry. 42nd ed. Charotar Pub., Anand, 2000.
- Gill, P.S.T.B. of Geometrical Drawing, 3rd ed. Dewan Suhil Kumar kataria, Ludhiana, 1986.
- Shah, M.G., Kale, C.M. and Patki, S.Y. Building Drawing: with an integrated approach to built environment. 7th ed. Tata Mc Graw Hill Pub. Delhi. 2000.
- Bies, D.John. Architectural Drafting: Structure and Environment Bobbs – Merril Educational Pub., Indianapolis.
- Nelson, A. John. H.B. of Architectural and Civil Drafting, Van Nostrand Reinhold, New York, 1983.
- Francis D. Ching – Architectural Graphics , Wiley publishers, 2002
- Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
- Hanks, A.David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.
- Helper, E.Donald, Wallach, I.Paul. Architecture Drafting and Design, 3rd ed. McGraw-Hill Book Company, New York, 1977.
- John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, 1st edition, 1997
- Johannes Itten, The Art of color, John Wiley & Sons; Revised edition, 1997
- Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designers and Architects, Rockport publishers, 2005.
- Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
- Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.
- Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
- Meiss, pierré Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
- Pipes, Alan. Drawing for 3-Dimensional Design. Thames and Hudson Ltd., London, 1990.
- Stephen Kliment, Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.
- Ivo.D. Drpic, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
- Maureen Mitton, Interior Design Visual Presentation: A Guide to graphics, models and presentation techniques, 3rd edition, wiley publishers, 2007
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- Francis D.Ching, Design Drawing, Wiley publishers
- Atkin William W. Corbellent, Raniero and Fiore. R. Vincent, Pencil Techniques in Modern Design. 4th ed. Reinhold pub Corporation. New York, 1962.

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*Bately, Claude - Design development of India Architecture*

- Bately, Claude. Design Development of India Architecture.
- Bellings, Lance Bowen. Perspective space and Design.
- Burden, Ernest, Architectural Delineation: A photographic approach to presentation, 2nd ed, McGraw Hill, Inc., New York, 1982.
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- John. F. Pile, Perspective for Interior Designers, Watson – Guptill, 1989.
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- Joseph D. Amelin. Perspective Drawing Hand book. Dover publications. 2004

**Core Paper – 4**

**ID-204: Basic Construction (Practical)**

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

**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. MASONARY**

3. Brick Masonry  
Different types of Bonds in various thickness / Corners
4. Stone Masonry
  - f) Various types of stone masonry
  - g) Dry Rubbled
  - h) Random Rubbled
  - i) Ashlar fine
  - j) Ashlar chamfered

**Unit II:**

**Structures – framed and load bearing structures**

- c) Basic concept, differentiations and limitation for construction special care to be taken while demolition (without damaging existing structure)
- d) Introduction of foundation

**Unit III**

**B. Opening in Masonary work**

**Lintels – various types**

- f) Timbers
- g) Brick

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iv) Stone

i) Steel

j) 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**

- iv. Various joints in Timber and their applications
- v. Introduction to various fasteners: nails, screws, nuts and bolts rivets etc.
- vi. Various methods of fastening: welding, 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.

- f) Study of subject and of materials museum and use of the same in the practice, preferably during actual site visits.
- g) Conducting carpentry workshops for understanding detailed and micro construction of furniture with various alternative materials.
- h) Demonstrating carpentry joinery through models.
- i) Collecting and studying for deeper understanding of the details of interior construction related various hardware and their proper applications with uses.
- i) 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 Construction. 19th ed. Dhannat Rai Pub.. New Delhi. 2000.
- Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd.
- Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
- Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.
- Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.
- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.

Core Paper – 5



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ID-205 ~~Interior design~~  
~~ID-205: Interior Construction (Practical)~~

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

### 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 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 in to 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
  - Paneled 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 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.

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- 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

- Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
- Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
- Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003
- Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.
- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
- Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.
- S.K.Duggal, Building Materials, Illustrated, A.A.Balkema, 1998
- Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
- Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
- Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003
- Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.
- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
- Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.
- S.K.Duggal, Building Materials, Illustrated, A.A.Balkema, 1998

#### Core Paper - 6

ID-206: Interior Design-I(Residential Design Project) (Practical)

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

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### 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.

### 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 inquiries.

Photographs from the magazines in respect of Interiors, Identifying the various elements there in, 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 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 projects for their merits and demerits by means of reading, study of drawings, interpretation and discussion.

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**Reference**

- Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
- Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
- Francis.D. Ching & Corky Bingelli, Interior Design Illustrated, 2nd edition, Wiley publishers, 2004.
- Julius Panero & Martin Zelnick, Human Dimension & Interior Space : A source book of Design Reference standards, Watson – Guptill, 1979.
- Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
- Mark.W. Lin, Drawing and Designing with Confidence: A step-by-step guide, Wiley and Sons. 1993.
- Robert Rengel, Shaping Interior Space, Fairchild Books & Visuals ,2002

**Core Paper-7**

**ID-207: Computer Aided Design (Auto CAD)(Practical)**

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

**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.

**Unit Contents**

- Introduction to AUTOCAD 2D
  - Starting & Closing AutoCAD
  - Screen Layout and Mouse operation
  - Pull Down Menu, Tool Bars, Command Window
  - Drawing file operation
  - Creating Entities - Line - Arc - Circle
  - Erase - Redraw
  - Entity Selection
  - Draw Toolbars
  - Hatch Patterns
  - Working with Text & Fonts Stiles
  - Modify Tool Bar
  - Editing with Grips
  - Poly line and Editing of Poly line
  - Entity Tools

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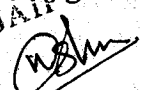
- Using Arrays
- Zoom options
- Making Blocks and Insertation of objects
- Specifying Units and Limits
- Understanding Scale factors
- Using Grip and Snap Modes
- Standard and Properties Bar
- Creating Assigning, Controlling, working with Layers and Line Types
- Dimension Menu
- Enquiry
- Printing/ Plotting the Drawings
- Creation of sample drawing

### Unit Contents

- Introduction to AUTOCAD 2D
  - Starting & Closing AutoCAD
  - Screen Layout and Mouse operation
  - Pull Down Menu, Tool Bars, Command Window
  - Drawing file operation
  - Creating Entities - Line - Arc - Circle
  - Erase - Redraw
  - Entity Selection
  - Draw Toolbars
  - Hatch Patterns
  - Working with Text & Fonts Stiles
  - Modify Tool Bar
  - Editing with Grips
  - Pivline and Editing of Polyline
  - Entity Tools
  - Using Arrays
  - Zoom options
  - Making Blocks and Insertation of objects
  - Specifying Units and Limits
  - Understanding Scale factors
  - Using Grip and Snap Modes
  - Standard and Properties Bar
  - Creating Assigning, Controlling, working with Layers and Line Types
  - Demension Menu
  - Enquiry
  - Printing/ Plotting the Drawings
  - Creation of sample drawing
- Introduction to AUTOCAD - 3D
  - Concept of Evaluation! Thickness
  - Use of 3D view point. Tripode and view option

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- Top, Side, Front view
- Hide & Shade option
- Dynamic 3D viewing - Perspective View
- Use of 3D Face! 3D polyline / 3 dimension
- USE OF UCS & V ISION
- Edge surface, Ruled surface, Revolution Surface & Tabular Surface
- Wire Frame and Solid Modeling
- Boolean Functions
- Rendering
- Concept of Slides and Scripts
- Model Making
- Use of Layers and Colors in 3D
- Adding Shadows and Materials
- Background Scenes & light effects
- Insertation Landscape & people
- Export and Import of 3D model to and from 3D Studio
- Sample Project

#### 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  
Color compositions, painting in windows
- Drawing simple geometry objects and drafting of room give building / apartment / flat and Bungalows

#### Reference

- Teyapooan. T., Engineering Drawing with Auto CAD 2000. Vikas Pub House Pvt Ltd, New Delhi. 2000.
- Parker, Daniel and Rice, Habert. Inside Auto CAD Daniel, 1987.
- Geomura, Auto CAD, Release 2000.
- Oscar Riera Ojed , Lucast Guerre, Hyper realistic Computer Generated Architectural Renderings .
- Giuliano Zampi Conway Lloyd Morgan, Virtual Architecture.

**(YEAR-3)**  
**Distribution of Marks**  
**B. Des.-Interior Design Part-III**

Subject Theory	Max Marks	Min. Pass Marks	Duration of Exam	Teaching Hours
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ID-301: Services	100		36		3 Hrs.	100
ID-302: Estimation & Costing	100		36		3 Hrs.	100
<b>Subject –Practical</b>	<b>Internal Max.M.</b>	<b>External Max. M.</b>	<b>Internal Min.P.M.</b>	<b>External Min.P. M.</b>		
ID-303: Interior Design-II – Retail & Store Design	40	60	16	24	6 Hrs.	100
ID-304: Commercial Model Making	40	60	16	24	6 Hrs.	100
ID-305: Computer Aided Design – 3DS Max	20	30	08	12	4 Hrs.	50
ID-305: Interior Design III Commercial Projects	40	60	16	24	6 Hrs.	100
ID-306 Elective(Choose any one)	20	30	08	12	4 Hrs.	50
a. Product Photography						
b. Fashion Accessory						
c. Visual Merchandising						
d. E-Commerce for Product Life Style						

**Core Paper - 1**

**ID-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 centers.

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

**Unit Contents**

**Unit I:**

a. Lighting

Terms like lumen, candle, wiring systems & their suitability, types of lighting, types of light fittings & fixtures

b. Telephone & Telecommunication and Lan system

Different types of electronic (sound equipments)

**Unit II:**

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*Environmental Consideration like Energy efficiency, Solar Energy etc Study*

- 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 equipments 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

**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 from 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 projects 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 articles and problem solving through juries.

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*Photographs from the magazine in respect of Interior Identifying the Various elements*  
~~Photographs from the magazines in respect of interiors, identifying the various elements~~

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

#### Reference

- Rangawala, S.C Building construction, chartor publishing house, Anand 1963.
- Pratap R.M (1988), Interior design principles and practice, Standard publisher's distribution. Delhi.
- Park. K (1995), Text book of preventive and social medicine, Banaridas Bhanot publishers, Jabalpur.
- Faulkner, S. and Faulkner, R. (1987), Inside Today 's Home , Rinehart publishing company, Newyork.
- WWW.Wikipedia.org. Air conditioning
- Scott – James, A. (1995), perfect plant perfect garden, corner octopus limited, London.
- 4. Too good, A. (1995), Designing with house plants, Grange Books publication, London.
- 5. Carter, G. (1977), Gardening with containers, Ryland Peter and small, London.
- Poella . L Leslie, Environmental Acoustics.
- Moore J.E. , Design of good acoustics, The architectural press, London, 1961.
- Burris, Harold, Acoustics for Architect.
- Lord, Peter and Templeton, Duncan, The Architecture of sound. ; Designing places of Assembly , Architectural press ltd, London, 1986.
- Egan David, Architectural acoustics, Mc-Graw Hill Book company, New york, 1988.
- John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
- Wanda jankowski, Lighting : In Architecture and Interior Design, pbc intl, 1995.
- Moore Fuller, Concepts and practice of Architectural Day lighting, Van Nostrand Reinhold co., New York, 1985.
- David Egan. M. Concepts in Architectural lighting Mcgraw Hill Book company, New York, 1983.

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**Core Paper-2**

**ID-302: Estimation & Costing (Theory)**

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

**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 Designer's 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.

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**Core Paper-3**

**ID-303: Interior Design-II – Retail & Store Design (Practical)**

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

**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*

- *Store Design – William R. Green*
- **The Retail Store Design & Construction – Willim Green**

**Core Paper-4**

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**ID-304: Commercial Model Making (Practical)**

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

**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 geodesic, 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
- **Materials:** eg wood, metal, plastics, fabrics, modelling materials, ceramics, hybrids, 'smart' materials, recycled materials, renewable materials, fibreglass, clay, plaster
- **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**

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*Understand the technological principles of Model making in a Commercial Context*

- 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 –Arian Karsson & Bernard Otte
- Das Architektur Modell

#### Core Paper-5

#### ID-305: CAD- 3D MAX, Photoshop, Corel Draw (Practical)

Internal Max. M: 20  
Internal Min.P. 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 3 D & 3 D Animation and Walk Through

#### Unit Contents

3D Studio & Photoshop

Getting Started

Using 3D studio

The Pull Down Menus

The Icon Pannel

The 2D Sharper

Creating Shapes for Lofting in 3D lofter

The 3D Lofter

Importing 2D Shapes for lofting & exports lofted objects into 3D editor

The 3DEdftor

Creating 3 D Models

Importing AutoCAD Models / 3 D 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

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## *Understanding Selection Sets*

*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 / Unilincs

Object Commands

Light & Camera Commands

Setting Animation Path

Rendering Animation

Display & Time Commands

The Materials Editors

Surface Colour

Mapping

Shading Models

Creating Materials

Using Materials Editor

Material Colour Monitor

Material Property Control

Sample Project

### 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

- Teyapooan. T., Engineering Drawing with Auto CAD 2000. Vikas Pub House Pvt Ltd, New Delhi, 2000.
- Parker, Daniel and Rice, Habert. Inside Auto CAD Daniel, 1987.
- Georgenmura, Auto CAD, Release 2000.
- Oscar Riera Ojed , Lucast Guerre, Hyper realistic Computer Generated Architectural Renderings .
- Giuliano Zampi Conway Lloyd Morgan, Virtual Architecture.

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### Core Paper-6

#### ID-306: Interior Design – III Commercial Project (Practical)

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

#### 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 centers.

#### 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 from 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.

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*Study of anthropometrics data from books, chart or actual design related items*

- 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

- Leibing. W. Ralph, Architectural Working Drawings, 4th edition, John wiley and sons, New York. 1999.
- Macey. W. Frank, Specification in detail, 5th edition, Technical press ltd, London, 1955.
- Shah, M.G.; and others, Building Drawing : An integrated approach to build environment, 3rd ed, Tata McGraw Hill Pub. Co. Ltd, New Delhi, 1996.
- Fredd Stitt. Working Drawing Manual. McGraw-Hill Professional: 1st edition. 1998.
- Kilmer, Workind Drawings and Details for Interiors, John Wiley and Sons,

#### Core Paper-7

#### ID-307: Elective(Choose any one)(Practical)

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

#### 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)

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*Photo Studio Photography Kit-3 light bulb Umbrella Muslin 3 Backdrop Stand Set*  
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**

Lacquer Craft Accessories, Textile Craft Accessories, Fashion Jewellery, Wood Craft Accessories, Metal Craft Accessories, Leather Craft & Packaging.

**Reference**

- a) Encyclopedia of Fashion Accessories author
- b) Fashion Accessories- The Complete 20th Century Source book Hardcover – September, 2000 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 colour 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.

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**Course Content**

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

**Reference**

1. Laine Stone, Jean samples, (1985) Fashion merchandising- An Introduction McGraw Hill Book Co. 1985.
2. Taarnow, Guerreiro & Judelio, (1995) Inside the fashion Business
3. Swapna Pradhan, (2007) Retailing Management, Tata McGraw Hill Publishing Co. Ltd.
4. A.J. Lamba, (2003) The Art of Retailing The Tata McGraw Hill Publishing Company Ltd.
5. Martin M. Pegler (2011) Visual merchandising and Display, Fairchild Publications.
6. Judith Bell, Kate Ternus. (2011) Silent Selling: Best Practices and Effective Strategies in Visual Merchandising, Fairchild Publications.
7. Karen M. Videtic, Cynthia W. Steele, (2009) Perry's Department Store: A Buying simulation for juniors, Men's Wear, Children's Wear, & Home Fashion/Giftware, Fairchild Publications.

**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 behavior 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 global 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 fueling their passion.

**Unit Contents**

- Online Industry Appreciation and Business World, Fundamentals of Management, Creative Managerial Leadership, Market Dynamics, Fashion & Lifestyle Products, Fundamentals of Ecommerce.
- Digital Marketing, Merchandising, Sourcing and Vendor management, Project Management, Long Industry Attachment, Specialiation1a Customer Relations Management, Specialiation1b Advanced Data Analytics, Specialiation2a Visual Communication, Specialiation2b User Experience Design & Business Plan.

**Reference**

- Enterprise Resource Planning System Author Daniel E. O'leary.

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*Enterprise Resource Planning Author Ravishanker & S. Jaiswal.*

- Enterprise Resource Planning Author Ravishanker & S. Jaiswal.
- E-Commerce Get it Right! Author Ian Daniel.

**(YEAR-4)**

**Distribution of Marks**

**B. Des. -Interior Design Foundation Part-IV**

Subject Theory	Max Marks		Min. Pass Marks		Duration of Exam	Teaching Hours
	Internal Max.M.	External Max. M	Internal Min.P.M.	External Min.P. M		
ID-401: Entrepreneurship	100		36		3 Hrs.	100
ID-402: Brand Development	100		36		3 Hrs.	100
Subject –Practical	Internal Max.M.	External Max. M	Internal Min.P.M.	External Min.P. M		
ID-403: Sustainable Design (Eco Design, Social Cause & Environmental Design)	40	60	16	24	6 Hrs.	100
ID-404: Design Portfolio	40	60	16	24	6 Hrs.	100

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ID-405: Professional Practice (Internship & Industry Mentored)	40	60	16	24	6 Hrs.	100
ID-406: Dissertation	40	60	16	24	6 Hrs.	100

### Core Paper-1

#### ID-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/no women Entrepreneurs, their Role, Problems and Prospects.

**Reference**

1. Vasanth Desai "Dynamics of Entrepreneurial Development and Management Himalaya Publishing House."
2. N.P. Srinivasan & G.P. Gupta, Entrepreneurial Development, Sultan Chand & Sons.
3. P. Saravanavelu Entrepreneurship Development, Eskapee Publications.
4. Satish Taneja, Entrepreneur Development, New Venture Creations.
5. Robert D. Hisrich, Michael P. Peters, Entrepreneurship Development, Tata McGraw Hill Edition.

**Core Paper-2**

**ID-402: Brand Development (Theory)**

**Max. M: 100**

**Min.P. M.:36**

**Aim**

A brand is a philosophy of a designer transformed in to 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 ones 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.

**Core Paper - 3**

**ID-403: Sustainable Design (Eco Design, Social Cause & Environmental Design)(Practical)**

**Internal Max. M: 40**

**Internal Min.P. M.: 16**

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### 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, Psychometric 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
- 4) 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

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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.
- Griff Boyle, Design Project Management, Ashgate Publishing; illustrated edition, 2003.

**Core Paper-4**

**ID-404: Design Portfolio (Practical)**

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

**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 eras, 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 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.

**Core Paper - 5**

**ID-405: Professional Practice (Internship & Industry Mentored) (Practical)**

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

**Aim**

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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.

**Core Paper - 6**

**ID-406: Dissertation(Documentation & Visual Presentation, practical aspect)**

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

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 subjects. Its meant to reflect an understanding of the critical, historical and philosophical issues from the past of present in conclusion and their intellectual sources or a

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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 department of Industry.

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