Your Dreams Our Goal

# POORNIMA UNIVERSITY

Member of Association of Indian Universities & Approved by UGC (Govt. of India) under 2(f) & 12(B)

# FACULTY OF DESIGN AND ARTS

## DEPARTMENT OF INTERIOR DESIGN


# SCHEME & SYLLABUS BOOKLET

# SCHEME & SYLLABUS

# BATCH: 2023-27

# INDEX



**Disclaimer:** The scheme, syllabus and other materials published in this booklet may be changed or modified as per the requirement after approval of competent authority. The decision taken by the management of Poornima University will be final and abiding to all.

**Student Details**

Name of Student:

Name of Program:

Semester: Year: Batch:

Faculty of:

Your Dreams Our Goal

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## *VISION*

To create knowledge based society with scientific temper, team spirit and dignity of labor to face global competitive challenges.

## *Mission*

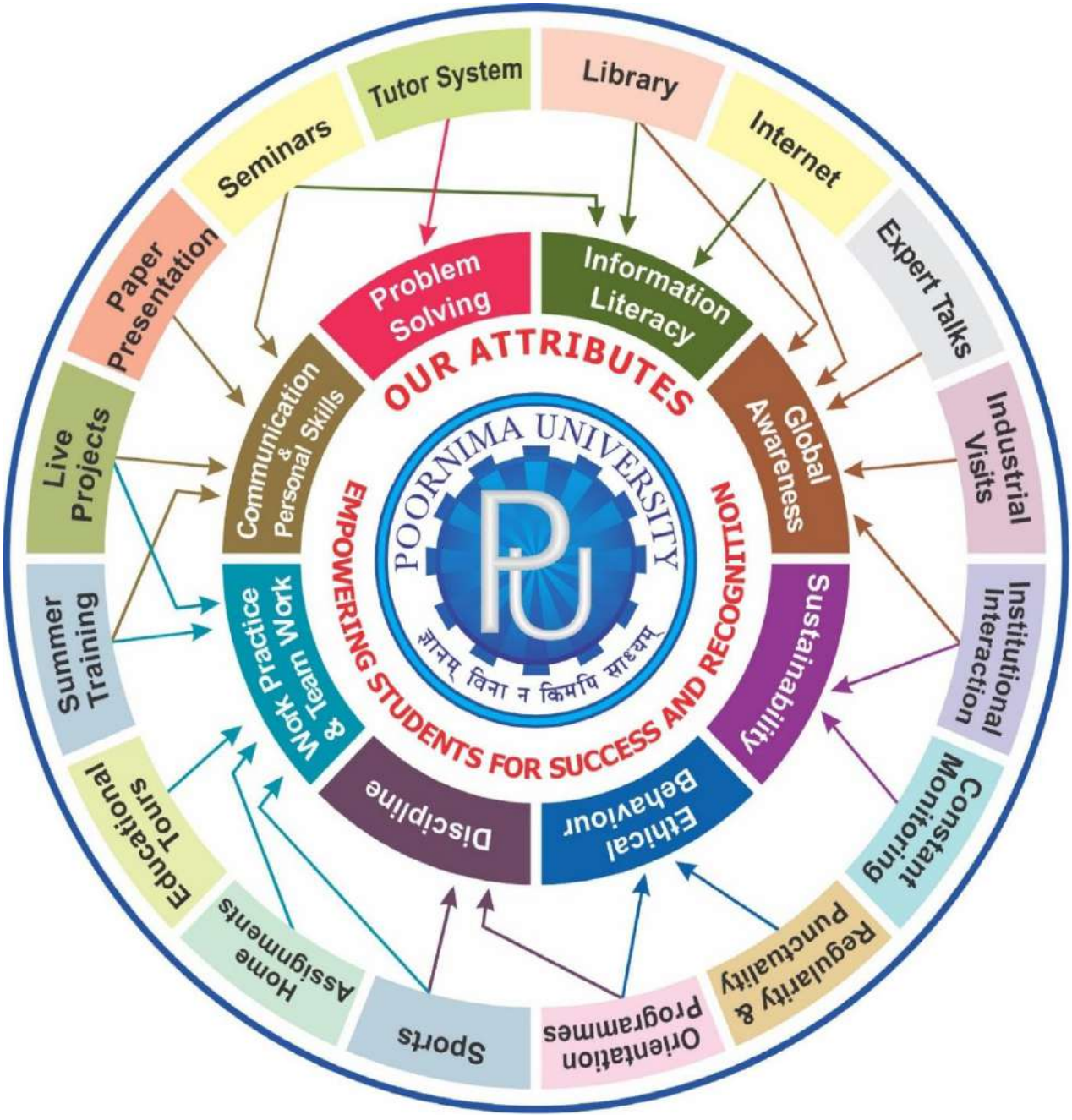
To evolve and develop skill based systems for effective delivery of knowledge so as to equip young professionals with dedication and commitment to excellence in all spheres of life.

## *Quality Policy*

To provide Quality Education through Faculty development, updating of facilities and continual improvement meeting University norms and keeping stake holders satisfied.

# *Knowledge Wheel*

At Poornima, the academic atmosphere is a rare blend of modern technical as well as soft skills and traditional systems of learning processes.



## About Program and Program Outcomes (PO):

**Title of the Programme:** Bachelor of Interior Design (BID)

**Nature of the Programme:** BID. is a four-year full-time Programme.

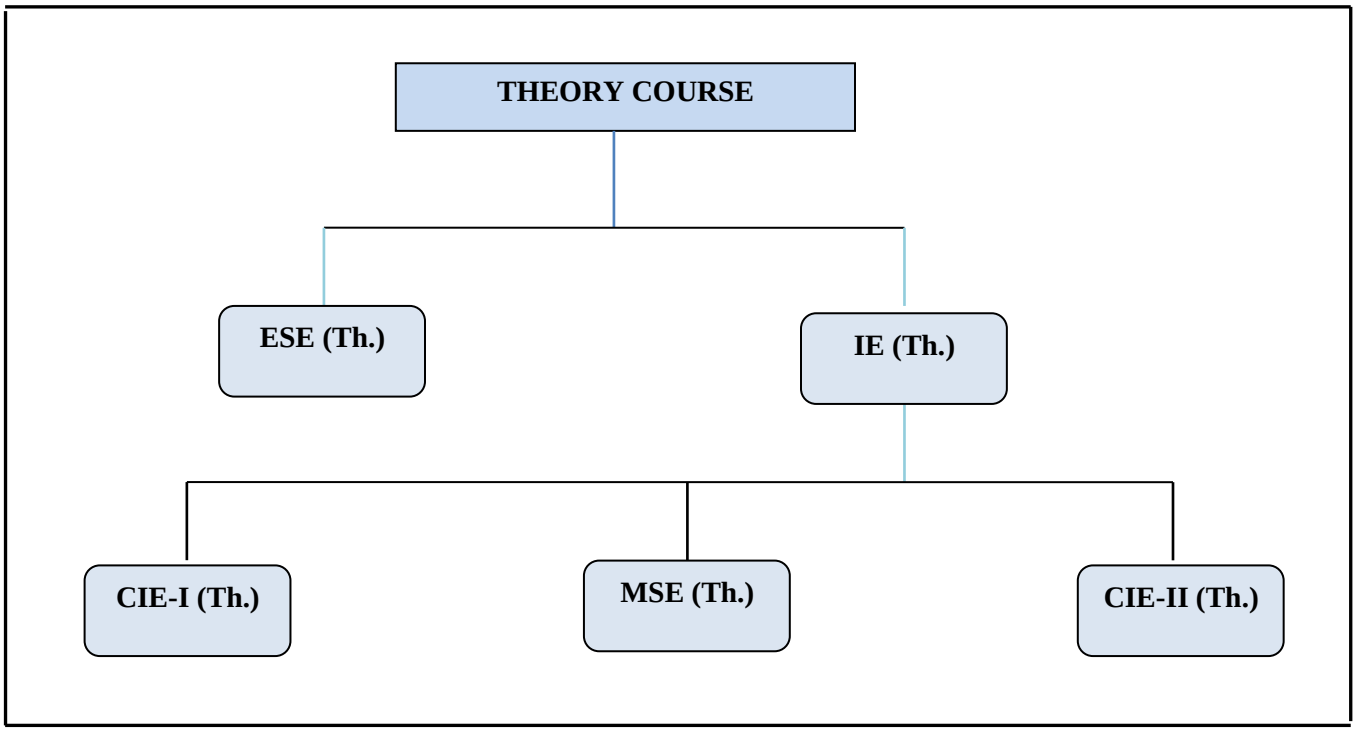
## Program Outcomes (PO) :

Interior Design Graduates will be able to do:

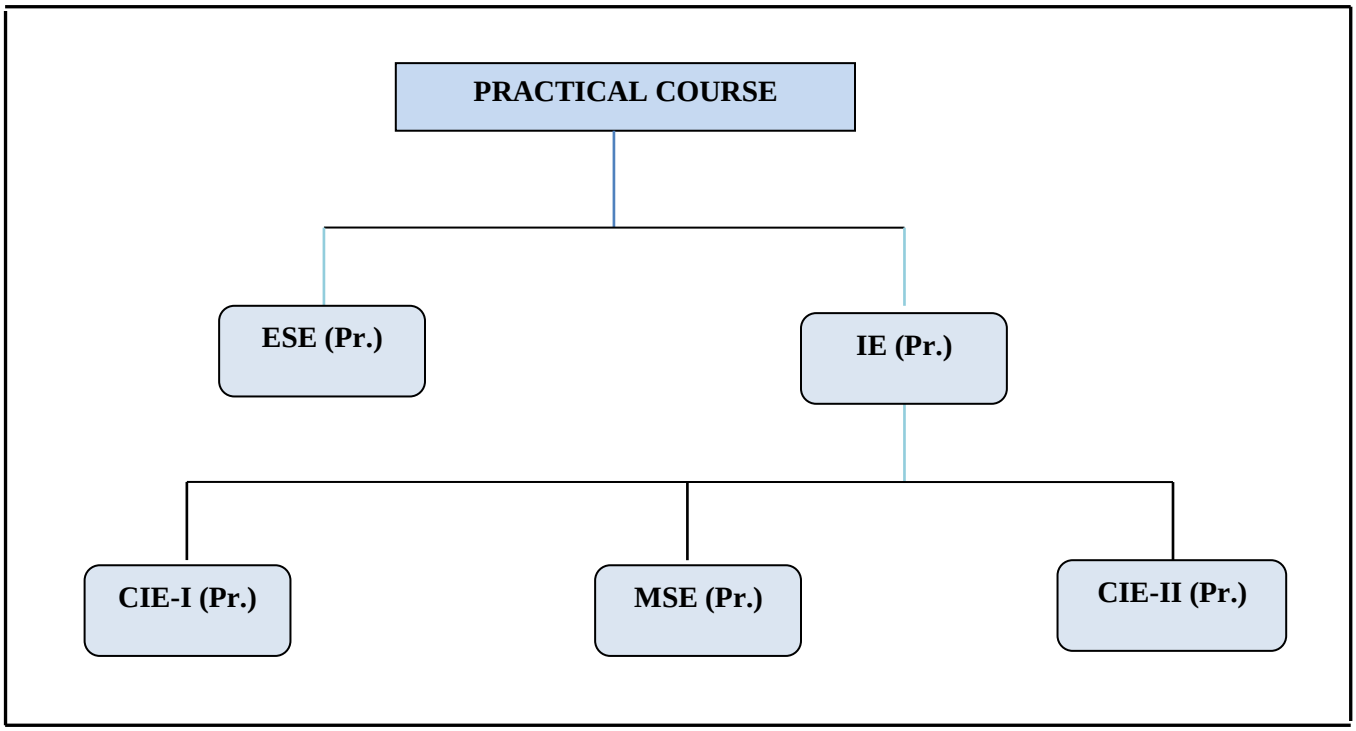
1. **Design Knowledge:** Apply the knowledge of design fundamentals, and a specialization to the solution of complex design problems.
2. **Problem analysis:** Identify, formulate, research literature, and analyze complex design problems reaching substantiated conclusions using elements and principles of design.
3. **Design/Development of solutions:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern designing and IT tools including prediction and modeling to complex designing activities with an understanding of the limitations.
6. **The Designer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional design practice.
7. **Environment and Sustainability:** Understand the impact of the professional designing solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the designing practice.
9. **Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex design activities with the design community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project Management and Finance:** Demonstrate knowledge and understanding of the design and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.

**Examination System :**

**A. Marks Distribution of Theory Course:**




**B. Marks Distribution of Practical Course :**




**Th**.: Theory, Pr.: Practical, **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **CIE:** Continuous Internal Evaluation.

## CO Wise Marks Distribution:

| Exam Entity | Theory Subject | | Practical/ Studio Subject | |
|---|---|---|---|---|
| | Maximum Marks | CO to be Covered | CO to be Covered | Maximum Marks |
| **CIE-I** | 16 ( 8 + 8) | 1 & 2 | 1 & 2 | 24 (12 + 12) |
| **MSE** | 16 ( 8 + 8) | 3 & 4 | 3 & 4 | 24 (12 + 12) |
| **CIE-II (Activity/ Assignment )** | 8 (8) | 5 | 5 | 12 (12) |
| **ESE** | 60 | - | - | 40 |
| **TOTAL** | 100 | - | - | 100 |

## Minimum Passing Percentage in All Exams:

| S No. | Program Name | Minimum Passing Percentage in | | |
|---|---|---|---|---|
| | | IE Component | ESE Component | Total Component |
| **1** | Course Work for PhD Registration | **-** | **-** | **50%** |
| **2** | B. Arch. | **-** | **45%** | **50%** |
| **3** | MBA, MCA, M.Des., M.Tech., M.Plan, MHA, MPH, MA | **-** | **40%** | **40%** |
| **4** | B. Tech., B. Des., BVA, BCA, B.Sc., BBA, B.Com., B.A. | **-** | **35%** | **35%** |

## SGPA Calculation

$$SGPA = \frac{C_1G_1 + C_2G_2 + \ldots\ldots\ldots + C_nG_n}{C_1 + C_2 + \ldots\ldots + C_n}$$

$$SGPA = \frac{\sum_i C_i \times G_i}{\sum_i C_i}$$

where (as per teaching scheme & syllabus):

$C_i$ is the number of credits of subject i,

$G_i$ is the Grade Point for the subject I and i = 1 to n,

n = number of subjects in a course in the semester

## CGPA Calculation

$$CGPA = \frac{C_1G_1 + C_2G_2 + \ldots\ldots\ldots + C_nG_n}{C_1 + C_2 + \ldots\ldots + C_n}$$

$$CGPA = \frac{\sum_i C_i \times G_i}{\sum_i C_i}$$

where (as per teaching scheme & syllabus):

$C_i$ is the number of credits of subject i,

$G_i$ is the Grade Point for the subject I and i = 1 to n,

n = number of subjects in a course of all the semesters up to which CGPA is computed

## Grading Table:

| Applicable for B.Arch. & Ph.D. Courses | Applicable for All Courses except B.Arch. & Ph.D. |
|---|---|

| Academic Performance | Grade | Grade Point | Marks Range (in %) |
|---|---|---|---|
| Outstanding | O | 10 | 90≤ x ≤100 |
| Excellent | A+ | 9 | 80≤ x <90 |
| Very Good | A | 8 | 70≤ x <80 |
| Good | B+ | 7 | 60≤ x <70 |
| Above Average | B | 6 | 50≤ x <60 |
| Fail | F | 0 | x <50 |
| Absent | Ab | 0 | Absent |

| Academic Performance | Grade | Grade Point | Marks Range (in %) |
|---|---|---|---|
| Outstanding | O | 10 | 90≤ x ≤100 |
| Excellent | A+ | 9 | 80≤ x <90 |
| Very Good | A | 8 | 70≤ x <80 |
| Good | B+ | 7 | 60≤ x <70 |
| Above Average | B | 6 | 50≤ x <60 |
| Average | C | 5 | 40≤ x <50 |
| Pass | P | 4 | 35≤ x <40 |
| Fail | F | 0 | x <35 |
| Absent | Ab | 0 | Absent |

## CGPA to percentage conversion rule:

**Equivalent % of Marks in the Program = *CGPA* *10**

## Award of Class

| CGPA | Percentage | Equivalent Division |
|---|---|---|
| 7.50 ≤ CGPA | 75% or more | First Division with Distinction |
| 6.00 ≤ CGPA < 7.50 | 60% ≤ x <75% | First Division |
| 5.00 ≤ CGPA < 6.00 | 50% ≤ x <60% | Second Division |
| 4.00 ≤ CGPA < 5.00 | 40% ≤ x < 50% | Pass Class |

# Guidelines for Massive Open Online Courses (MOOCs)

**(Session 2023-24)**

Poornima University, in its never ending endeavor to equip students with best-of-class learning and knowledge, has undertaken to include MOOC courses as part of its credit scheme from session 2023-24 onwards. The objective behind this is to enable students to study courses designed by the best teachers in the country and to scale their knowledge base with the rest of learners from the nation. The MOOCs which are included under this scheme is can be chosen from SWAYAM and NPTEL.

## 1. Introduction of MOOCs: SWAYAM and NPTEL

### About SWAYAM:

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

This is done through a platform that facilitates hosting of all the courses, taught in classrooms to be accessed by anyone, anywhere at any time. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to any learner. However learners wanting a SWAYAM certificate should register for the final proctored exams that come at a fee and attend in-person at designated centers on specified dates. Eligibility for the certificate will be announced on the course page and learners will get certificates only if this criteria is matched.

The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology.

In order to ensure that best quality content is produced and delivered, nine National Coordinators have been appointed. They are:

1. AICTE (All India Council for Technical Education) for self-paced and international courses
2. NPTEL (National Programme on Technology Enhanced Learning) for Engineering
3. UGC (University Grants Commission) for non-technical post-graduation education
4. CEC (Consortium for Educational Communication) for under-graduate education
5. NCERT (National Council of Educational Research and Training) for school education
6. NIOS (National Institute of Open Schooling) for school education
7. IGNOU (Indira Gandhi National Open University) for out-of-school students
8. IIMB (Indian Institute of Management, Bangalore) for management studies
9. NITTTR (National Institute of Technical Teachers Training and Research) for Teacher Training programme

Two types of courses are offered on SWAYAM platform: Credit Courses and Non- Credit Courses. Credit courses are offered for each semester in January and July every year. The list is available on SWAYAM official website: https://onlinecourses.swayam2.ac.in/

## About NPTEL:

NPTEL (National Programme on Technology Enhanced Learning), is a joint venture of the IITs and IISc, funded by the Ministry of Education (MoE) Government of India, and was launched in 2003. Initially started as a project to take quality education to all corners of the country, NPTEL now offers close to 600+ courses for certification every semester in about 22 disciplines.

## Some highlights:

- Largest online repository in the world of courses in engineering, basic sciences and selected humanities and management subjects
- YouTube channel for NPTEL – most subscribed educational channel, 1.3 billion views and 40+ lakhs subscribers
- More than 56000 hours of video content, transcribed and subtitled
- Most accessed library of peer-reviewed educational content in the world
- Translation of more than 12000 hrs of English transcripts in regional Indian languages

## NPTEL Online Certification:

The objective of enabling students obtain certificates for courses is to make students employable in the industry or pursue a suitable higher education programme. Through an online portal, 4, 8, or 12-week online courses, typically on topics relevant to students in all years of higher education along with basic core courses in sciences and humanities with exposure to relevant tools and technologies, are being offered. Enrolment to and learning from these courses is free. Following these online courses, an in-person, proctored certification exam is conducted and a certificate is provided through the participating institutions and industry, as applicable.

Some statistics regarding the open online courses since March 2014 till Dec 2021

Completed courses: 3496;

Enrollments across courses: 1.58 CRORE +

Number of exam registrations: 15.1 LAKH +

All the statistics pertaining to completed courses are available at https://beta.nptel.ac.in/courses. All courses are completely free to enroll and learn from. The certification exam is optional and comes at a fee of Rs 1000/course exam.

## 2. MOOCs at Poornima University:

MOOCs envelops best in class teaching - learning processes along with meeting the requirements of various courses in terms of quality of teaching and evaluation system. To promote the MOOCs among students of Poornima University, it is decided to consider the credits earned through MOOCs.

### (a) Options for MOOCs at Poornima University

**(For this document, only those MOOCs will be considered which are available on SWAYAM & NPTEL platforms)**

- Credit and Non-credit SWAYAM MOOCs can be opted by anyone, anytime, anywhere and in any language. However, prior-permission of the University Authorities is mandatory if the credits are to be transferred to regular degree.
- In case of credit courses, there are two ways to opt these courses for the purpose of credit transfer to PU system as given below:

### OPTION–I: As Open Elective (for batches entered till 2022) / Multidisciplinary Courses (for batches admitted from 2023-24 onwards):

Open Elective (for batches entered till 2022) / Multidisciplinary Courses (for batches admitted from 2023-24 onwards) are available at University level in offline mode for which relevant booklets are already published. **These courses carries 02 credits.** These category/type of courses (similar/different) are also available as MOOC courses. The respective Deans / HODs shall provide both the options to all the students to either select offline courses or MOOCs as per details given below:

- Deans / HODs shall prepare a list of upto 05 appropriate MOOC courses of 02/03 credits each, well in advance (at-least 15 days prior to commencement of semester) and take approval from the Office of Dean, Academics / Pro-President, PU.
- After approval, the respective Deans / HODs shall circulate a notice to all their respective students so that they can select any one course from the list, the credits **(only 02)** of which will be counted against Open Elective/ Multidisciplinary courses pertaining to that particular semester.
- If the students are not willing to opt for MOOC Open Elective/ Multidisciplinary course, they can proceed with the current offline practice of opting for Multidisciplinary courses.
- The tutor of the class shall monitor the progress (assignments, feedback, any problem etc.) on weekly basis and report to Head/Dean.

**OR**

### OPTION–II: As Major / Minor Courses:

- Deans / HODs shall identify a course of **03 credits** for each semester, well in advance (at-least 15 days prior to commencement of semester) and take approval from the Office of Dean, Academics / Pro-President, PU.

- After approval, the respective Deans / HODs shall circulate a notice to all their respective students citing that the particular course will be conducted through MOOCs only and is compulsory for all respective students. The credits of this course will be counted against Major/Minor courses pertaining to that particular semester.

- The tutor of the class shall monitor the progress (assignments, feedback, any problem etc.) on weekly basis and report to Head/Dean.
- This is to be noted that if Deans / HODs decide to conduct any major/minor course in any semester through MOOCs, no offline course will be conducted against that.

**(b) Important points related to MOOCs at Poornima University**

- Only one MOOC shall be allowed in a particular semester for the purpose of credit transfer in the beginning.
- No attendance will be taken for MOOC courses.
- Last period of T/T/S shall be taken for MOOC courses which shall be in self-study mode.
- The method of assessments of MOOC such as assignments and examination are completely associated with that particular MOOC and no exam will be conducted by the department as well as by the Examination Cell.
- The respective Dean / HOD must submit the detail of course i.e., code, name and credit of MOOC opted against that particular course in particular semester attached with highlighting in the related examination scheme of syllabus of that semester signed by BOS Convener / HoD and Dean of Faculty to the office of Pro-President before commencement of the classes.
- SWAYAM will award a certificate to all the students passing the examination along with the credit earned. The center of examination for SWAYAM MOOCs will be finalized by SWAYAM. All the responsibility related to registration for MOOCs, timely submission of assignments, examinations etc. will be borne by the students only.
- The list of registered students in MOOC along with name of course will be submitted to the Examination Cell by the Deans / HoDs before commencement of the classes.
- Any student who would not be able to register/present/clear/pass the MOOC in the stipulated time, it is the choice of the student that he or she may register in next semester (odd or even) with MOOC again or appear as a back exam candidate of the University as per PU norms.
- There will be no provision of re-evaluation of MOOC.
- The scorecard and related certificate of MOOC along with a consolidated list of students with marks of assignment and final exam will be submitted to the examination cell by the concerned Dean / HOD for further process. It is also recommended that alteration/changes/scaling in marks obtained by the students in any MOOC will not be considered.
- The exam registration fee of MOOC up to Max. INR 1000/- will be reimbursed to the student only after successful completion of the course in first attempt and submission of the fee receipt, score-card and certificate of the MOOC to the concerned department within stipulated time after declaration of the results.

**NOTE: This is to be noted that the procedure for getting approval from BOS, Faculty Board, Academic Council and BoM is to be followed as per regular process.**

## Attached Items:

| | |
|---|---|
| Open Elective Booklet | Annexure-1 |
| Soft Skills Booklet | Annexure-2 |
| Value Added Course Booklet | Annexure-3 |

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-I

| Course Code | Name of Course | Teaching Scheme | | | | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | SH | IE | ESE | Total | |
| **A.** | **Major (Core Courses)** | | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| BIDCID1101 | History of world Art & Culture | 2 | - | - | - | 40 | 60 | 100 | 2 |
| BIDCID1102 | Art &Design Fundamentals – I | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **A.2** | **Practical** | | | | | | | | |
| BIDCID1201 | Basic Design & Concepts | 2 | - | 5 | 1* | 60 | 40 | 100 | 7 |
| BIDCID1202 | Material Exploration Design & Model making – I | 2 | - | 2 | 1* | 60 | 40 | 100 | 3 |
| BIDCID1203 | Interior Geometry and Drawing | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| BIDCID1204 | Basic Computers skills – I | 2 | - | 2 | - | 60 | 40 | 100 | 3 |
| **B.** | **Minor Stream Courses/ Department Electives** | | | | | | | | |
| **B.1** | **Theory** | - | | | | | | | |
| **B.2** | **Practical** | - | | | | | | | |
| | - | | | | | | | | |
| **C** | **Multidisciplinary Courses** | | | | | | | | |
| | | - | - | - | | | | | |
| **D** | **Ability Enhancement Courses (AEC)** | | | | | | | | |
| BUACHU1101 | English | 2 | - | - | | 40 | 60 | 100 | 2 |
| **E** | **Skill Enhancement Courses (SEC)** | | | | | | | | |
| BIDEID1101 | Drawing, Color Study & Graphics – I | 1 | - | 2 | 2* | 60 | 40 | 100 | 2 |
| **F** | **Value Added Courses (VAC)** | | | | | | | | |
| BUVCHU1103 | Understanding Heritage | 2 | - | - | | 40 | 60 | 100 | 2 |
| **G** | **Summer Internship / Research Project / Dissertation** | | | | | | | | |
| | | | | | | | | | |
| **Total** | | 17 | 0 | 13 | 6* | | | | **26** |
| **Total Teaching Hours** | | **30/36** | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-II

| Course Code | Name of Course | Teaching Scheme | | | | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | SH | IE | ESE | Total | |
| **A.** | **Major (Core Courses)** | | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| BIDCID2101 | History of Interior Design – I | 2 | - | - | - | 40 | 60 | 100 | 2 |
| BIDCID2102 | Design Calculations | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **A.2** | **Practical** | | | | | | | | |
| BIDCID2201 | Interior Design Studio – I and Measure Drawing | 2 | - | 4 | 2* | 60 | 40 | 100 | 6 |
| BIDCID2202 | Material Exploration Design and Model Making – II | 2 | | 2 | 1* | 60 | 40 | 100 | 3 |
| BIDCID2203 | Carpentry & Metal Soldering | 2 | | 2 | 1* | 60 | 40 | 100 | 3 |
| BIDCID2204 | Basic Computers & Presentation skills – II | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| **B.** | **Minor Stream Courses/Department Electives** | | | | | | | | |
| **B.1** | **Theory (Any One)** | - | | | | | | | |
| **B.2** | **Practical** | - | | | | | | | |
| **C** | **Multidisciplinary Courses** | | | | | | | | |
| | | | | | | | | | |
| **D** | **Ability Enhancement Courses (AEC)** | | | | | | | | |
| BUACHU2204 | Language Lab | - | - | 2 | | 60 | 40 | 100 | 1 |
| **E** | **Skill Enhancement Courses (SEC)** | | | | | | | | |
| BIDEID2101 | Drawing, Color study and graphics-II | 2 | - | 2 | - | 60 | 40 | 100 | 3 |
| **F** | **Value Added Courses (VAC)** | | | | | | | | |
| BUVCSA2101 | Environment Pollution & Human Health | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **G** | **Summer Internship / Research Project / Dissertation** | | | | | | | | |
| | | - | - | - | | | | | |
| **Total** | | 16 | - | 14 | 6* | | | | **25** |
| **Total Teaching Hours** | | **30/36** | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-III

| Course Code | Name of Course | Teaching Scheme | | | | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | SH | IE | ESE | Total | |
| **A.** | **Major (Core Courses)** | | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| BIDCID3101 | History of Interior Design – II | 2 | - | - | - | 40 | 60 | 100 | 2 |
| BIDCID3102 | Material Study – I | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **A.2** | **Practical** | | | | | | | | |
| BIDCID3201 | Interior Design Studio – II | 1 | | 4 | 2* | 60 | 40 | 100 | 5 |
| BIDCID3202 | Furniture design – I | 2 | - | 2 | - | 60 | 40 | 100 | 3 |
| BIDCID3203 | Building Services – I | 1 | - | 2 | 2* | 60 | 40 | 100 | 2 |
| BIDCID3204 | Computer Applications – III | 2 | - | 2 | - | 60 | 40 | 100 | 3 |
| BIDCID3205 | Building Construction – I | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| **B.** | **Minor Stream Courses/Department Electives** | | | | | | | | |
| **B.1** | **Theory (Any one)** | | | | | | | | |
| **B.2** | **Practical** | | | | | | | | |
| **C** | **Multidisciplinary Courses** | | | | | | | | |
| BIDEMC3101 | MOOC Course-I | 2 | - | 0 | | | | | 2 |
| **D** | **Ability Enhancement Courses (AEC)** | | | | | | | | |
| | | | | | | | | | |
| **E** | **Skill Enhancement Courses (SEC)** | | | | | | | | |
| BIDEID3101 | Drawing, Color Study & Graphics – III | 1 | - | 2 | - | 60 | 40 | 100 | 2 |
| **F** | **Value Added Courses (VAC)** | | | | | | | | |
| BUVCSA3102 | Waste Management | 1 | - | 0 | | 40 | 60 | 100 | 1 |
| **G** | **Summer Internship / Research Project / Dissertation** | | | | | | | | |
| | - | 16 | | 14 | 6* | | | | **25** |
| **Total Teaching Hours** | | **30/36** | | | | | | | |

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# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-IV

| Course Code | Name of Course | Teaching Scheme | | | | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | SH | IE | ESE | Total | |
| **A.** | **Major (Core Courses)** | | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| BIDCID4101 | Theory of Interior Furnishings | 2 | - | - | - | 40 | 60 | 100 | 2 |
| BIDCID4102 | Material Study – II | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **A.2** | **Practical** | | | | | | | | |
| BIDCID4201 | Interior Design Studio – III | 1 | - | 5 | 2* | 60 | 40 | 100 | 6 |
| BIDCID4202 | Furniture design – II | 2 | - | 2 | - | 60 | 40 | 100 | 3 |
| BIDCID4203 | Building Services – II | 1 | | 2 | - | 60 | 40 | 100 | 2 |
| BIDCID4204 | Computer Applications – IV | 1 | - | 2 | 2* | 60 | 40 | 100 | 2 |
| BIDCID4205 | Building Construction – II | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| | **Minor Stream Courses / Department Electives** | | | | | | | | |
| **B.1** | **Theory** | | | | | | | | |
| BIDEID4101 | Lighting and color in Interiors | 2 | - | - | - | 40 | 60 | 100 | 2 |
| BIDEID4102 | Environmental control in Interiors | | | | | | | | |
| **B.2** | **Practical** | | | | | | | | |
| | | | | | | | | | |
| **C** | **Multidisciplinary Courses (MC)** | | | | | | | | |
| BIDEMC4101 | MOOC Course-II | 2 | - | - | | 40 | 60 | 100 | 2 |
| **D** | **Ability Enhancement Courses (AEC)** | | | | | | | | |
| | | | | | | | | | |
| **E** | **Skill Enhancement Courses (SEC)** | | | | | | | | |
| BIDEID4101 | Interior Design Photography | - | - | 2 | - | 60 | 40 | 100 | 1 |
| **F** | **Value Added Courses (VAC)** | | | | | | | | |
| | | | | | | | | | |
| **G** | **Summer Internship / Research Project / Dissertation** | | | | | | | | |
| | | | | | | | | | |
| **Total** | | 15 | - | 15 | 6* | | | | **25** |
| **Total Teaching Hours** | | **30/36** | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-V

| Course Code | Name of Course | Teaching Scheme | | | | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | SH | IE | ESE | Total | |
| **A.** | **Major (Core Courses)** | | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| BIDCID5101 | Interior Estimation & Costing | 2 | - | - | - | 40 | 60 | 100 | 2 |
| BIDCID5102 | Material Study – III | 2 | | | | 40 | 60 | 100 | 2 |
| BIDCID5103 | Basics of Vaastu | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **A.2** | **Practical** | | | | | | | | |
| BIDCID5201 | Interior Design Studio – V | 1 | - | 6 | 2* | 60 | 40 | 100 | 7 |
| BIDCID5202 | Working Drawing – I | 1 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| BIDCID5203 | Building Services – III | 1 | - | 2 | - | 60 | 40 | 100 | 2 |
| BIDCID5204 | Computer Applications – V | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| **B.** | **Minor Stream Courses / Department Electives** | | | | | | | | |
| **B.1** | **Theory (Any One)** | | | | | | | | |
| **B.2** | **Practical (Any one)** | | | | | | | | |
| BIDEID4201.1 | Heritage Interior | 1 | - | 2 | - | 60 | 40 | 100 | 2 |
| BIDEID4201.2 | Product Design | | | | | | | | |
| **C** | **Multidisciplinary Courses** | | | | | | | | |
| BIDEMC5101 | MOOC Course-III | 2 | - | - | - | 40 | 60 | 100 | 2 |
| **D** | **Ability Enhancement Courses (AEC)** | | | | | | | | |
| BUACHU5115 | Entrepreneurial & Managerial Skills | 1 | - | - | | 60 | 40 | 100 | 1 |
| **E** | **Skill Enhancement Courses (SEC)** | | | | | | | | |
| | Skill Enhancement Generic Course-V | 1 | | - | | 60 | 40 | 100 | 1 |
| **F** | **Value Added Courses (VAC)** | | | | | | | | |
| | | | | | | | | | |
| **G** | **Summer Internship / Research Project / Dissertation** | | | | | | | | |
| | | | | | | | | | |
| **Total** | | 16 | | 14 | 6* | | | | **27** |
| **Total Teaching Hours** | | **30/36** | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-VI

| Course Code | Name of Course | Teaching Scheme | | | SH | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | | IE | ESE | Total | |
| **A.** | | **Major (Core Courses)** | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| BIDCID6101 | Advance Materials | 2 | - | 0 | | 40 | 60 | 100 | 2 |
| **A.2** | **Practical** | | | | | | | | |
| BIDCID6201 | Interior Design Studio – V | 1 | - | 6 | 2* | 60 | 40 | 100 | 7 |
| BIDCID6202 | Working Drawing – II | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| BIDCID6203 | Dissertation and pre thesis | 2 | - | 2 | - | 60 | 40 | 100 | 3 |
| BIDCID6204 | Interior Landscape design | 2 | - | 2 | 2* | 60 | 40 | 100 | 3 |
| BIDCID6205 | Portfolio Development & Presentation | 1 | | 2 | | 60 | 40 | 100 | 2 |
| **B.** | **Minor Stream Courses / Department Electives** | | | | | | | | |
| **B.1** | Theory | | | | | | | | |
| BIDEID6101.1 | History of Rajasthan Art& Culture | 2 | - | - | - | 60 | 40 | 100 | 2 |
| BIDEID6101.2 | Sustainable development in interior design | | | | | | | | |
| **B.2** | **Multidisciplinary Courses** | | | | | | | | |
| BIDEMC6101 | MOOC Course-IV | 2 | - | - | | | | | 2 |
| **C** | | **Ability Enhancement Courses (AEC)** | | | | | | | |
| | | - | - | - | | | | | |
| **D** | | **Skill Enhancement Courses (SEC)** | | | | | | | |
| BUACHU6120 | Presentation & Interview Skills | 2 | - | - | | 40 | 60 | 100 | 2 |
| **E** | | **Value Added Courses (VAC)** | | | | | | | |
| | - | - | - | - | | | | | |
| **F** | | **Summer Internship / Research Project / Dissertation** | | | | | | | |
| | | | | | | | | | |
| **Total** | | 16 | - | 14 | 6* | | | | |
| **Total Teaching Hours** | | **30/36** | | | | | | | **26** |
| | | | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

**Semester-VII**

| Course Code | Name of Course | Teaching Scheme | | | SH | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | | IE | ESE | Total | |
| **A.** | | **Major (Core Courses)** | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| **A.2** | **Practical** | | | | | | | | |
| | | | | | | | | | |
| **A.3** | **Project** | | | | | | | | |
| BIDCID 7301 | Thesis Design Project | 2 | | 20 | 6* | 60 | 40 | 100 | 22 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| **B.** | | Minor Stream Courses**/ Department Electives** | | | | | | | |
| **B.1** | **Theory (Any One)** | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| **B.2** | **Practical** | | | | | | | | |
| | - | | | | | | | | |
| **C** | | **Multidisciplinary Courses** | | | | | | | |
| BIDEMC 7101 | MOOC Course-V | - | - | - | | | | | - |
| **D** | | **Ability Enhancement Courses (AEC)** | | | | | | | |
| | | - | - | - | | | | | |
| **E** | | **Skill Enhancement Courses (SEC)** | | | | | | | |
| | - | - | - | - | | | | | |
| **F** | | **Value Added Courses (VAC)** | | | | | | | |
| | - | - | - | - | | | | | |
| **G** | | **Summer Internship / Research Project / Dissertation** | | | | | | | |
| | | | | | | | | | |
| **Total** | | 2 | 0 | 20 | 6* | | | | **22** |
| **Total Teaching Hours** | | **22/28** | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# POORNIMA UNIVERSITY, JAIPUR

Faculty of Design and Arts

**Name of Program:** Bachelor of Interior Design (BID) **Duration: 4 Years Total Credits:203**

## Teaching Scheme for Batch 2023-27

### Semester-VIII

| Course Code | Name of Course | Teaching Scheme | | | | Marks Distribution | | | Credits |
|---|---|---|---|---|---|---|---|---|---|
| | | Lecture (L) | Tutorial (T) | Practical (P) | SH | IE | ESE | Total | |
| **A.** | | **Major (Core Courses)** | | | | | | | |
| **A.1** | **Theory** | | | | | | | | |
| **A.2** | **Practical** | | | | | | | | |
| | | | | | | | | | |
| **B.** | | Minor Stream Courses/**Department Electives** | | | | | | | |
| **B.1** | **Theory** | | | | | | | | |
| **B.2** | **Practical** | | | | | | | | |
| **C** | | **Multidisciplinary Courses** | | | | | | | |
| | | - | - | - | | | | | |
| **D** | | **Ability Enhancement Courses (AEC)** | | | | | | | |
| | | - | - | - | | | | | |
| **E** | | **Skill Enhancement Courses (SEC)** | | | | | | | |
| | | - | - | - | | | | | |
| **F** | | **Value Added Courses (VAC)** | | | | | | | |
| | | - | - | - | | | | | |
| **G** | | **Summer Internship / Research Project / Dissertation** | | | | | | | |
| BIDCID 8501 | Practical Training (Internship) for 110 Working Days & its Seminar. | - | - | - | - | 60 | 40 | 100 | 26 |
| **Total** | | | | | | | | | **26** |
| **Total Teaching Hours** | | **0** | | | | | | | |

**SH: Supporting Hours**

***Classes will be conducted fortnightly**

# SYLLABUS

# I Semester

| BIDCID1101 | HISTORY OF WORLD ART & CULTURE | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Introduction to the brief history of the concept of Art and its relevance in the society. Treating art as a visual language and evaluating in the context of religion, politics and trades throughout ages.

Expression of religious beliefs through history; the impact of religions in the developments and changes in various cultures.

The objective of the course is:

- To introduce the historical and cultural contexts of interior design.
- To develop basic skills for research and written communication in presentation of structured and critical arguments.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand how does Trade and Commerce affects Art: Multi-cultures
- CO2. Be familiar with the specialized terminology and language of interior design.
- CO3. Understand basics tools for research documentation.
- CO5. General Knowledge about Religions over the world and their art practices
- CO5. Understand Chronological development of art in various regions

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| CO2 | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| CO3 | 2 | 3 | – | – | – | – | – | – | – | – | – | – |
| CO4 | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| CO5 | 3 | 2 | – | – | – | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 3 | 2 | - | – |
| CO2 | 2 | 3 | - | – |
| CO3 | 2 | 2 | 2 | – |
| CO4 | 3 | 2 | - | – |
| CO5 | 2 | 2 | 2 | – |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **History of Western Art** | 6 |
| **2** | **Industrial revolution** | 4 |
| **3** | **Impact of world war I** | 6 |
| **4** | **Impact of world war II** | 4 |
| **5** | **Art in east & Indus valley civilization.** | 4 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **History of Western Art** |
| | • Introduction of unit<br>• Introduction to History of Western Art from Prehistoric times till date.<br>• Prehistory and ancient history background (eg. Palaeolithic, Neolithic, Metal Age, Greece and Etruria, Rome, Europe, art nouveau, art Deco etc.)<br>• Conclusion and summary of unit |
| **2.** | **Industrial revolution** |
| | • Introduction of unit<br>• Introduction to Industrial Revolution and its effects on Western Art & Culture.<br>• What major influence did the Industrial Revolution have on art?<br>• Conclusion and summary of unit |
| **3.** | **Impact of world wars I** |
| | • Introduction of unit<br>• Introduction to World War I and its effects on Western Art & Culture (Art, Literature, Theatre, Art and Politics)<br>• Conclusion and summary of unit |
| **4.** | **Impact of world wars II** |
| | • Introduction of unit<br>• Introduction to World War II and its effects on Western Art & Culture (Movements in Twentieth-Century Art After World War II)<br>• Conclusion and summary of unit |
| **5.** | **Art in east & Indus valley civilization.** |
| | • Introduction of unit<br>• Introduction to the Art and Culture of Mesopotamia, Egypt, Jainism & Buddhism and Indus Valley Civilization.<br>• Conclusion and summary of unit |

## E. RECOMMENDED STUDY MATERIAL

| Sr.No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Janson's History of Art: Western Tradition | Penelope, JE Davies, WalterB Denny, FrimaFoxHofrichter, Joseph F Jacobs | 2006 | Pearson Education Publication |
| **2.** | History of Art 'A students handbook' | Maria Pointon | 1997 | Routledge Publication |
| **3.** | Art History Aesthetics & Visual culture | Caroline Van Eck & Edward Winters | 2005 | Ashgate Publishing Ltd. |
| **4.** | A history of visual culture: Western civilization from 18th - 21st cent, | Jan Kromm& Susan BenforadoBakewell | 2009 | Oxfordshire, UK Berg Publishers |
| | • http://www.boloji.com/index.cfm?md=Content&sd=Articles&ArticleID=6714http://www.boloji.com/index.cfm?md=Content&sd=Articles&ArticleID=6714<br>• http://www.infoplease.com/encyclopedia/entertainment/indianart-architecture-indus-valley-civilization.htmlhttp://www.infoplease.com/encyclopedia/entertainment/indian-art-architecture-indus-valley-civilization.html<br>• http://www.infoplease.com/encyclopedia/entertainment/indianart-architecture-indus-valley-civilization.htmlhttp://www.infoplease.com/encyclopedia/entertainment/indian-art-architecture-indus-valley-civilization.html<br>• http://www.concisewesternciv.com/arth/ar2.htmlhttp://www.concisewesternciv.com/arth/ar2.html | | | |

## F. EVALUATON

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

| BIDCID1102 | ART & DESIGN FUNDAMENTALS-I | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To understand and apply the different elements of design for better design learning.
- To improve and optimize the design journey.
- To understand & implement different frames best suitable for a balanced composition.
- To understand the application of RGB, CMYK, color wheel, etc.
- To understand the importance of color in our life.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the elements & principles of design and also be able to differentiate between them.
- CO2. Create something which is aesthetically pleasing and optimizes the user experience. These principles will help the student to improve their design journey.
- CO3. Understand the importance of a good &balanced composition. Their understanding of the other courses will be put in together in the best possible way to see the whole composition.
- CO4. Develop a better understanding towards RGB, CMYK, color wheel, etc.
- CO5. Understand the importance of color in their life, culture, nature and our surroundings.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 2 | – | – | – | – | – | – | – | – | – |
| CO2 | 2 | 1 | 2 | 1 | – | – | – | – | – | – | – | – |
| CO3 | 1 | 2 | 2 | 1 | – | – | – | – | – | – | – | – |
| CO4 | 2 | 2 | 2 | – | – | – | – | – | – | – | – | – |
| CO5 | 3 | 2 | 2 | – | – | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 2 | 2 | 2 |
| CO2 | 2 | 2 | 1 | - |
| CO3 | 2 | 2 | 2 | - |
| CO4 | 2 | 2 | 1 | 1 |
| CO5 | 1 | - | 2 | 3 |

**Note**: On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Elements of design** | 6 |
| **2** | **Principles of design** | 4 |
| **3** | **Study of form** | 6 |
| **4** | **Study of form and space** | 4 |
| **5** | **Anthropometrics** | 4 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Elements of Design** |
| | • Introduction of unit<br>• Elements of Design- Dot, Line, Shape, Form, Texture, Light, Depth, Pattern etc.<br>• Hands on exercise for understanding elements of design.<br>• Conclusion and summary of unit |
| **2.** | **Principles of Design** |
| | • Introduction of unit<br>• Principles of design –Contrast, Harmony, Rhythm, Balance, Unity, Proportion, Scale etc.<br>• Hands on exercise for understanding principles of design.<br>• Conclusion and summary of unit |
| **3.** | **Composition- 2D** |
| | • Introduction of unit<br>• Understanding shapes and forms, basic geometry in shapes.<br>• 2D composition of geometrical shapes, free hand doodling and composition.<br>• Conclusion and summary of unit |
| **4.** | **Color Theory** |
| | • Introduction of unit<br>• Color and nature<br>• Color System (RGB, CMYK, and PANTONE), Color Wheel (primary, secondary and tertiary colors), etc.<br>• Conclusion and summary of unit |
| **5.** | **Color Schemes and Psychology** |
| | • Introduction of unit<br>• Color Schemes<br>• Color psychology, symbolism, expression-color basics- (physics of light, pigments etc.)<br>• Conclusion and summary of unit |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Universal principles of design | WilliamLidwell , Kritina Holden, Jill Butler | 2010 | **Rockport Publishers** |
| **2.** | Visual imagination – An introduction of Art | Kurty D. Bruce | 1964 | New Jersey, Prentice Hall, Hayashi Studio. |
| **3.** | Water Color Rendering, | Guerin, Jules. | 2010 | University of Michigan Library Publication |
| **4.** | Manual of Rendering in pen and ink | Gill Robert W | 1984 | Van Nostrand Reinhold Publication. |
| **5.** | Principles of three dimensional Design | Wucius Wong | 1977 | NY. NY. USA. Van NostrandReinhold Publication |
| **6.** | Principles of two dimensional Design | Wucius Wong | 1977 | NY.NY. USA. Van Nostrand Reinhold Publication |
| **7.** | Basic Design: the Dynamics of Visual Form | Sansmarg Maurice de | 1964 | UK, The Herbert press |
| **8.** | Interaction of Colors | Albert, Josef | 1963 | U.S. Yale University Press |

## F. EVALUATON

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

| BIDCID1201 | BASIC DESIGN & CONCEPTS | 7 Credits [LTP: 2-0-5] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To introduce and initiate design thinking in students using design vocabulary, principle & elements of design using exploratory 2D & 3D design exercises.
- To explore the inter relation between form, space & function and their relation with quality of spaces

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the basics of design process.
- CO2. Demonstrate competency in the use of design fundamentals as principal tools in establishing design criteria and developing the overall design process.
- CO3. Practice the application of basic rules of space planning and organization.
- CO4. To understand the ideation generation of design.
- CO5. To understand how research in design is important for any design ideation and development. Practice the brain storming exercise for design development.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | - | 2 | - | - | – | – | – | – | – | – | – |
| **CO2** | 2 | 2 | 2 | - | - | – | – | – | – | – | – | – |
| **CO3** | 2 | 3 | - | - | - | – | – | – | – | – | – | – |
| **CO4** | 1 | 2 | - | 2 | - | – | – | – | – | – | – | – |
| **CO5** | 1 | 1 | 1 | 1 | 1 | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 1 | - |
| **CO2** | 2 | 1 | 1 | 1 |
| **CO3** | 1 | 2 | 1 | - |
| **CO4** | 2 | 2 | 2 | - |
| **CO5** | 3 | 1 | 1 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **The Design Process** | 12 |
| **2** | **Design Objectives** | 18 |
| **3** | **Ideation of design** | 12 |
| **4** | **Research** | 18 |
| **5** | **Conceptualizing Design** | 12 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **The Design Process** |
| | • Introduction of unit.<br>• Study of form and space<br>• Understanding design process<br>• Steps to design process.<br>• Defining the design project. |
| **2.** | **Design Objectives** |
| | • Introduction of unit.<br>• What are design objectives?<br>• Understanding design objectives and concepts. |
| **3.** | **Ideation of design** |
| | • Introduction of unit.<br>• Understanding Brainstorming, thinking outside the box, ideating a range of different, creative ideas that address the unmet user needs identified in the define phase. |
| **4.** | **Research** |
| | • Introduction of unit.<br>• Understanding beyond the generic information or brief given by the client.<br>• Researching further to understand the product/service and try to achieve clear and conclusive information about the design objective, customer preferences, competitors' design outlook, primary features, key value proposition, and so on.<br>• Creating a strong research work for client needs and demands. |
| **5.** | **Conceptualizing Design** |
| | • Introduction of unit.<br>• Understanding the process of design in different stages and conceptualizing a basic design.<br>• Studying the above units, student must understand the design complexities and create conceptual design. |

## E.RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | The Design Process | Karl Aspelund | 2015 | Fairchild books |
| **2.** | Design Process in Architecture: From Concept to Completion | Geoffrey Makstutis | 2018 | Laurence King Publishing |

| BIDCID1202 | MATERIALS EXPLORATION DESIGN& MODEL MAKING – 1 | 3 Credits [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To introduce the methods of Material Exploration: Need; role of scale material exploration in design: general practices: Digital models.
- To develop the understanding of various tools and machines employed, best practices involved in Material exploration the tools and the techniques. Making practical models.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the use of basic materials and their uses in design and incorporating them in their projects. Materials for ex. Paper, Thermo coal, Cardboard.
- CO2. Understand the use of basic materials and their uses in design and incorporating them in their projects. Materials for eq. Resin, Fiber, Yarn, Fabric, Plastic Leather etc.
- CO3. Understand the use of basic materials and their uses in design and incorporating them in their projects. Materials for ex. Clay, POP
- CO4. Understand the use of basic materials and their uses in design and incorporating them in their projects. Materials for ex. Wood, Timber
- CO5. Fuse different materials for making any product or to use them in any of the design projects

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 2 | 2 | – | | – | – | – | – | – | – | – |
| **CO2** | 3 | 1 | 1 | – | 1 | – | – | – | – | – | – | – |
| **CO3** | 3 | 2 | 2 | – | – | – | – | – | – | – | – | – |
| **CO4** | 3 | 1 | 2 | – | – | – | – | – | – | – | – | – |
| **CO5** | 3 | 2 | | 2 | – | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 2 | 1 | - |
| **CO2** | 3 | 1 | 1 | 1 |
| **CO3** | 3 | 1 | 1 | 1 |
| **CO4** | 2 | 1 | 1 | 3 |
| **CO5** | 2 | 1 | 1 | 3 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Exploration I** | 10 |
| **2** | **Exploration II** | 10 |
| **3** | **Exploration III** | 10 |
| **4** | **Exploration IV** | 10 |
| **5** | **Fusion** | 8 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Exploration I** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of basic materials (E.g. Paper and Card board, etc.)<br>• Exploration and Manipulation of basic materials.<br>• Conclusion and summary of unit |
| **2.** | **Exploration II** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of basic materials (eg. Fiber, Yarn, Fabric, Plastic, Leather etc.)<br>• Exploration and Manipulation of these materials.<br>• Conclusion and summary of unit |
| **3.** | **Exploration III** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of basic materials (eg. Soap, Clay, POP etc.)<br>• Exploration and Manipulation of these materials.<br>• Conclusion and summary of unit |
| **4.** | **Exploration IV** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of basic materials (eg. Wood, Timber etc.)<br>• Exploration and Manipulation of these materials.<br>• Conclusion and summary of unit |
| **5.** | **Fusion** |
| | Technique for fusing the above materials. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Rendering with pen & ink | Robert W. Gill, | 1984 | Thames & Hudson Publishing |
| **2.** | A Foundation Course in Drawing: A Complete Program of Techniques and Skills, | Peter Stayner& Terry Rosenberg | 2003 | Arcturus Publishing Ltd. |
| **3.** | Color theory: An essential guide to color | Walter Foster Publishing. | 2013 | Chois Gallery Publishing |
| **4.** | Designers Color Manual: The complete guide to color theory & application, | Tom Fraser & Adam Banks | 2004 | , Chronicle Books |

## F. EVALUATON

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

| BIDCID1203 | INTERIOR GEOMETRY & DRAWING | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

To familiarize the students with basic knowledge of orthographic projections of simple geometrical forms to be able to represent basic ideas through 2D & 3D designs. Also to understand and learn basic techniques of drafting and lettering.

## B. COURSE OUTCOMES

- CO1. To develop an understanding of solids & planes and their projections. It also includes the sections of prism, pyramid, cylinder & cone, and intersections of the same.
- CO2. To develop the surface of simple objects and with reference of the model of the previous exercise, the development of surface of the model finalized.
- CO3. To analyze the sciography of simple objects or study models at different times of the day.
- CO4. To create one point and two point perspective of simple objects or study models
- CO5. To understand the graphical presentation and rendering of the simple objects, symbols and model.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 2 | | - | 1 | — | — | — | — | — | — | — |
| **CO2** | 3 | 2 | 1 | | - | — | — | — | — | — | — | — |
| **CO3** | 3 | 2 | 1 | | - | — | — | — | — | — | — | — |
| **CO4** | 3 | 1 | 3 | - | - | — | — | — | — | — | — | — |
| **CO5** | 3 | 2 | | 2 | - | — | — | — | — | — | — | — |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 2 | 1 | - |
| **CO2** | 2 | 1 | 1 | 2 |
| **CO3** | 3 | 2 | 1 | - |
| **CO4** | 3 | 2 | 2 | - |
| **CO5** | 2 | 2 | 2 | - |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Drawing material and Equipment** | 6 |
| **2** | **Free hand drawings** | 10 |
| **3** | **Lettering, fonts and scale** | 10 |
| **4** | **Plane geometry** | 10 |
| **5** | **Plane, solid, section and intersection** | 12 |

## D.DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Drawing material and Equipment** |
| | • Basic introduction, Stationary and tools<br>• How to use drawing instruments |
| **2.** | **Free hand drawings** |
| | • Lines, Types of lines, Basic introduction of lines, Construction of lines, How to divide a line, Curves , Introduction of curve, To find center of an arch, Construction of ogee curve or reverse , curve, Objects, Basic introduction, Types of objects<br>• Application of free hand drawings, lines, curves and arches |
| **3.** | **Lettering, fonts and scale** |
| | • Introduction of lettering, Types of lettering, Single –stroke letters, Upper case and lower case letters, Introduction of fonts, Types of fonts , Scale, Scale on drawings, Types of scale, Plane scale, diagonal scale, comparative scale<br>• Application of scales in architectural drawings |
| **4.** | **Plane geometry** |
| | • Principles of plane geometry, Plane and their types, Principles, Orthographic projection of a point and line, Principles of projections , Method of projections, Quadrant, First angle projection, third angle projection, Orthographic projection of a point, Orthographic projection of a line<br>• How to use planes and projection methods to represent design drawings |
| **5.** | **Plane, solid, section and intersection** |
| | • Orthographic projection of a plane, Types of planes, Traces of planes, Projection of oblique plane, Orthographic projection of solids, Types of solids, Projection of solid in simple position, Projection of solid with inclination, Section of solids, Section of prism, Section of pyramid, Section of cylinder, Section of cone, Intersection of solids, Method of determining the line of intersection, Intersection of two prisms, Intersection of cylinder and cone<br>• Use of projections of solids in architectural drawings. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Engineering Drawing | P.S. Gill | 2006 | S.K. Kataria& Sons, New Delhi |
| **2.** | Architectural Graphics | Francis D.K. Ching | 2002 | |
| **3.** | Engineering material | N.D.Bhatt, V.M. Panchal | 50th | Chartar Publishing House |

## F. EVALUATON

Continuous assessment of session work may consist of evaluation of individual's project work and Assignment etc.

| BIDCID1204 | BASIC COMPUTERS SKILLS – I | 3 Credits [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To spread awareness & to teach the basics of computers in the field of architecture.
- To teach the basics of office management software.
- To understand fundamental and technical aspects of Communication using English as the base language & applications in the day to day life as well as professional life. This will include activities like: Role play, Storytelling, Debates, Two-minute presentation. Email writing, application writing in a professional field.

## B. COURSE OUTCOMES

- CO1. Demonstrate the usage of Basic English grammar like nouns, verbs, adverbs, etc. and components of effective communication using various tools of effective speech.
- CO2. To comprehend and write effective reports, design documentation and also make effective visual and verbal presentations
- CO3. To learn basics about computer and its application in documentation and writing
- CO4. To gain proficiency in using Microsoft Office and other similar software
- CO5. To become acquainted with design vocabulary

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | 2 | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | 2 | – | – | – | – | – | – | – | - | - |
| **CO3** | 2 | - | - | – | – | – | – | – | – | – | 2 | - |
| **CO4** | 3 | 2 | - | – | – | – | – | – | – | – | 3 | 2 |
| **CO5** | 1 | 2 | 3 | – | – | – | – | – | – | – | 1 | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 2 |
| **CO2** | 2 | 1 | 1 | 1 |
| **CO3** | 1 | 2 | 1 | 1 |
| **CO4** | 3 | 1 | 1 | 1 |
| **CO5** | 2 | 1 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Fundamentals of English & Communication** | 6 |
| **2** | **The Listening Comprehension** | 6 |
| **3** | **Reading and Language Comprehension** | 6 |
| **4** | **Introduction to computers** | 9 |
| **5** | **MS Office** | 9 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Fundamentals of English & Communication** |
| | • Basics of Grammar- Verbs, Adverbs, Nouns, Pronouns, Tenses, Adjectives<br>• Correct Usage of Grammar & Vocabulary<br>• Correct usage of nouns, pronouns, verbs and adverbs<br>• Components of effective communication<br>• Features of an effective speech, practicing fluently- dialogue practice, simple social exchanges, short extempore talks |
| **2.** | **The Listening Comprehension** |
| | • Listening process and types of listening<br>• Listening and understanding recorded, structured talks and classroom lectures<br>• Notes making and guessing meaning of words from the context<br>• Barriers to listening- Language, cultural, Psychological & Physical |
| **3.** | **Reading and Writing Comprehension** |
| | • Efficient and inefficient reading<br>• Reading instructions, graphic information, and interpretation<br>• Reading scientific and technical texts<br>• Use of library- role of bibliography, table of contents, index etc.- use of pocket dictionary<br>• Understanding of report writing, email writing, application writing. Understanding the basic professional language. |
| **4.** | **Introduction to computers** |
| | • An Overview of computer, Characteristics of computer, Computer Generations, Classification Of Computers, Introduction to computer components, Software Components, Hardware components, Storage Devices, Data Organization<br>• Computer network- Need, Scope and benefit of CN concepts, Network Types (Overview), Networking devices, Comparison between internet, Ethernet and intranet<br>• Computer software concepts- Introduction to computer software and its |

| | |
|---|---|
| | types, System Software, General Purpose Software (introduction), Application Software |
| **5.** | **MS Office** |
| | • MS Word- Introduction to MS Word, Page Layout and Paragraph, Tables, Mail Merge, Introduction to Mail Merge, Working with Mail Merge, Pasting of pictures in word document and how to filter the pictures.<br>• MS PowerPoint - Introduction to MS Power Point, Slide Management, Navigation schemes, Applying and modifying designs, Graphics & Multimedia, Creating presentation for the web. Pasting of pictures in slides and how to filter the pictures.<br>• MS Excel- Introduction to MS Excel, Formatting worksheet & printing worksheet, Charts Terminology, Working With Macros |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Effective Technical Communication | M. Ashraf Rizvi | 2005 | Tata McGraw-Hill |
| **2.** | Study reading- A SUBJECT in reading skills for academic purposes | EricH.Glenddings & Beverly Holmstrom | 1992 | Cambridge University Press |
| **3.** | Grammar of the Modern English Language | Sukhdev Singh &Balbir Singh | 2012 | Foundation Books, New Delhi |

## F. EVALUATON

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

| BIDEID1101 | DRAWING COLOR STUDY & GRAPHICS -1 | 3 Credits [LTP: 0-1-4] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To introduce the fundamentals of drawing through line as primary element.
- To introduce simple to complex process of drawing required to visualize the ideas.
- To study letterforms and typographic concepts as elements of graphic communication.
- To introduce the art of visual communication and the visual realization of a most basicelement of communication.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the medium of drawing and its importance in visualization.
- CO2. Develop the understanding towards observation, visualization and visual experiencethrough basic Elements of drawings
- CO3. Explore the new ideas through implementation of nature and object drawing indifferent medium and scales.
- CO4. Gain understanding of the basic principles of typography, including the selection andarrangement of type for effective legibility.
- CO5. Understand and develop the effective compositions of text, information, and visualsto enhance concept.

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Introduction** | 12 |
| 2 | **Sketching - I** | 12 |
| 3 | **Sketching - II** | 12 |
| 4 | **Sketching - III** | 12 |
| 5 | **Implementation and innovation** | 12 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | • Introduction of unit<br>• Introduction to drawing/ sketching tools (pencil grades, scales, etc.).<br>• Drawing techniques and its Implementation.<br>• Conclusion and summary of unit |
| **2.** | **Sketching - I** |
| | • Introduction of unit<br>• Free hand line sketching practice.<br>• Outline sketching of basic objects and geometric shapes with mediums like pencil and charcoal (elementary).<br>• Still life sketching of different objects, rendering in above mediums.<br>• Conclusion and summary of unit |
| **3.** | **Sketching - II** |
| | • Introduction of unit<br>• Nature study drawing with outline sketching.<br>• Still life sketching of nature, rendering with mediums like color pencils and dry pastels.<br>• Conclusion and summary of unit |
| **4.** | **Basics of Typography** |
| | • Introduction of unit<br>• Basics of Calligraphy and typography.<br>• Understanding the structure and proportion of words in different fonts.<br>• Study of different types of writing tools<br>• Conclusion and summary of unit |
| **5.** | **Exercise with words** |
| | • Introduction of unit<br>• Exercise with words (communication value of typeface and words).<br>• Exercise with different types of fonts and styles.<br>• Conclusion and summary of unit |

# E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1 | Typography, London UK | McLean Ruari | 1980 | Thames &Hudson Publishing |
| 2 | Typography: An Encyclopedia survey of Type Design & Techniques throughout History | Fried l Friedrich , Nicolaus OH & Stein Bernard | 1998 | Black Dog & Levnthal Publishers INC |
| 3 | Typography | David Choi, Lynn & Lei Znang | 2014 | Chois Galler y Publ. |
| 4 | Rendering with pen & ink | Robert W. Gill, | 1984 | Thames &Hudson Publishing |
| 5 | A Foundation Course in Drawing: A Complete Program of Techniques and Skills, | Peter Stayner& Terry Rosenberg | 2003 | Arcturus Publishing Ltd. |

# F. EVALUATON

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

# SYLLABUS

# II Semester

| BIDCID2101 | HISTORY OF INTERIOR DESIGN-I | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Explores traditional art forms, design elements, evolution of furniture styles, decorative elements and motifs throughout history in India across geographical locations.Creates understanding of social and cultural dimensions to interior design.

## B. COURSE OUTCOMES

- CO1. Understanding the history of Interior design in the Ancient world.
- CO2. Understanding the history of Interior design in the Middle ages of Europe.
- CO3. Understanding the history of Interior design in the Asia and African Cultures.
- CO4. Understanding the history of Interior design in the C. later middle ages.
- CO5. Understanding the history of Interior design in the Post industrial Revolution period

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| **CO2** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| **CO3** | 2 | 3 | – | – | – | – | – | – | – | – | – | – |
| **CO4** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| **CO5** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 2 | - | - |
| **CO2** | 2 | 3 | - | - |
| **CO3** | 1 | 2 | 3 | - |
| **CO4** | 2 | 2 | 2 | - |
| **CO5** | 2 | 2 | 2 | - |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Ancient World History** | 4 |
| **2** | **Middle ages in Europe** | 6 |
| **3** | **Asian and African Cultures** | 4 |
| **4** | **The Later Middle ages** | 6 |
| **5** | **Post Industrial Revolution Era** | 4 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Ancient World History** |
| | • Prehistory to Early civilizations, Prehistoric Interiors, Archeological evidence<br>• Evidence from Tribal Cultures, pattern and Design<br>• The first permanent settlement, Mesopotamia, Pre-Columbian America, Ancient Egypt<br>• Classical Civilizations: Greece and Rome |
| **2.** | **Middle ages in Europe** |
| | • Early Christian, Byzantine and Romanesque<br>• Early Christian Design<br>• Early medieval: The "Dark ages"<br>• The Romanesque style |
| **3.** | **Asian and African Cultures** |
| | • Islamic and Asian Traditions<br>• India and Pakistan(Buddhist, Hindu, Jain Architecture)<br>• Western Influences<br>• Cambodia, Thailand, Indonesia, China, Korea, Japan |
| **4.** | **The Later Middle ages** |
| | • Elements of Gothic Style<br>• The Renaissance in Italy<br>• Baroque and Rococo In Italy and North Europe<br>• Renaissance, Baroque and Rococo in France and Spain, Renaissance to Georgian<br>• Colonial and Federal America |
| **5.** | **Post Industrial Revolution Era** |
| | • The Regency, revivals and Industrial Revolution<br>• The Victorian Era<br>• The Aesthetic Movements<br>• Art Nouveau and the Vienna Secession<br>• Eclecticism |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | A history of Interior Design | John Pile and Judith Gura | 2013 | Wiley Publications |

## F. EVALUATON

Continuous assessment of session work may consist of evaluation of project work, Assignments etc.

| BIDCID2102 | DESIGN CALCULATIONS | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Taking measurements is a key element of the job and so as making decisions and results based on the calculations. We all know accuracy is crucial, professional interior designers and decorators measure everything in prescribed measurement system (metric & Imperial).
The objective of the course is:

- To Study the properties of lines and planes in space, along with sphere.
- To understand different Measurement Systems followed in India
- To understand Calculation of Areas and Perimeters
- To understand Forms, Calculation of Volumes and Surface Areas

## B. COURSE OUTCOMES

- CO1. Understand different conversion units followed in India.
- CO2. Develop the ability to calculate the area, perimeters, volumes and surface areas.
- CO3. Understand the subject & making of basic 3D shapes like cube, cuboids,cylinder, pyramidetc.
- CO4. Understand the Addition &Subtraction of different 3DShapes
- CO5. Present their design project completed in respect with the help of design calculations

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| **CO2** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |
| **CO3** | 2 | 3 | – | – | – | – | – | – | – | – | – | – |
| **CO4** | 1 | 2 | – | – | – | – | – | – | – | – | – | – |
| **CO5** | 3 | 2 | – | – | – | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 2 | – | – |
| **CO2** | 2 | 2 | – | – |
| **CO3** | 2 | 2 | – | – |
| **CO4** | 3 | 2 | – | – |
| **CO5** | 2 | 2 | – | – |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction** | 4 |
| **2** | **Basic Applied Mathematics** | 5 |
| **3** | **Area Programming** | 5 |
| **4** | **Material Calculation** | 5 |
| **5** | **Presentation of Design Project** | 5 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | • Introduction of unit<br>• Introduction to subject & making of basic 3D shapes like cube, cuboids,cylinder, pyramidetc.<br>• Conclusion and summary of unit |
| **2.** | **Basic Applied Mathematics** |
| | • Introduction of unit<br>• Addition & subtraction of different 3DShapes.<br>• Conclusion and summary of unit |
| **3.** | **Area Programming** |
| | • Introduction of unit<br>• Calculating area of space according to furniture kept init.<br>• Conclusion and summary of unit. |
| **4.** | **Material Calculation** |
| | • Introduction ofunit<br>• Calculating quantity of materials (wood, glass etc.) for a samplefurniture.<br>• Conclusion and summary ofunit |
| **5.** | **Presentation of Design Project** |
| | • Introduction ofunit<br>• Presenting their design project in respect with thesubject.<br>• Conclusion and summary ofunit |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Discovering mathematics Volume I to IV The Open University, UK | | | The Open University, UK |
| **2.** | Measurement | Paul Lockhart | 2012 | Harvard University press |
| **3.** | Everyday Math for Grown-ups: Getting to grips with the basics | KjartanPoskitt | 2015 | Michael O'Mara |
| **4.** | Mathematics Textbooks Class IX &X | | | Mathematics Textbooks Class IX &X |

## F. EVALUATON

Continuous assessment of session work may consist of evaluation of project work, Assignments etc.

| BIDCID2201 | INTERIOR DESIGN STUDIO – I AND MEASURED DRAWING | 6 Credits [LTP: 2-0-4] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To develop an understanding of standards and process used for preparation of interior drawings to develop the skills of preparing various architectural drawings and details used for designing of spaces.
- To understand the process involved for making drawings with sufficient details such that the contractor is able to develop as per the design.
- To understand graphical presentation of all the components of a building along with dimensioning and annotations

## B. COURSE OUTCOMES

- CO1. Create a visual language based on concept development.
- CO2. Understand the critical issues of human anthropometrics
- CO3. Understand the process of literature study and case study analysis in design projects.
- CO4. Develop and critique concepts diagrams.
- CO5. Integrate concepts into planning design decisions.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 2 | 3 | 2 | - | – | – | – | – | – | – | – | – |
| **CO2** | 2 | 1 | 3 | | – | – | – | – | – | – | – | – |
| **CO3** | - | 2 | 2 | 2 | – | – | – | – | – | – | – | – |
| **CO4** | - | 1 | 3 | 1 | – | – | – | – | – | – | – | – |
| **CO5** | 2 | 2 | 1 | - | – | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 1 | 1 |
| **CO2** | 1 | 1 | 2 | 1 |
| **CO3** | 1 | 1 | 1 | 1 |
| **CO4** | 3 | 2 | 1 | 1 |
| **CO5** | 2 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Introduction to Design Process** | 18 |
| 2 | **Pre-Design Studies, Site analysis & zoning** | 18 |
| 3 | **Ideation and Realization** | 18 |
| 4 | **Measure Drawing(Introduction, Measurement, Documentation)** | 18 |
| 5 | **Measure Drawing (Drawing and Presentation)** | 24 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction to Design Process** |
| | • Introduction of design problem<br>• Lecture on basic design process including user needs, program analysis, area analysis, market survey, site analysis etc.<br>• Discussion based on the existing exercise and the understanding of students.<br>• Student will understand the basics of design problem, which will include different types of stages of design and how the process works. |
| **2.** | **Pre-Design Studies , Site analysis & zoning** |
| | • Introduction of unit<br>• Importance of Case Studies/ Standards/ Anthropometrics/ Literature Studies in design process<br>• Identifying the furniture & activity<br>• Identifying the design scope & limitations.<br>• Understanding the importance of critical analysis of case studies and inferences outcome.<br>• Compilation of Site Analysis/ Zoning/ Bubble Diagram and Circulation Diagram/ Site Planning<br>• Formulation of design through elements and principles of design.<br>• Applications of Ordering principal such as axis, symmetry, hierarchy, datum, rhythms, repetition, visual perception proximity, repetition, simplest and largest figure, continuity and closure, figure and ground relationship<br>• Research on Design Styles.<br>• Conclusion and summary of unit. |
| **3.** | **Ideation and Realization** |
| | • Introduction of unit<br>• Concept Drawing and Design/ Plans/ Sections/ Elevation/ Views and Models |

| | |
|---|---|
| | • Design exercises of small scale interior space.<br>• Creating Design options based on the approved concept<br>• Creating Plans, elevations & sections of the final Design.<br>• Conclusion and summary of unit. |
| **4.** | **Measure Drawing(Introduction, Measurement, Documentation)** |
| | • Introduction of unit<br>• Techniques to measure the site<br>• To measure thoroughly the entire site<br>• Final documentation of the drawings<br>• Conclusion and summary of unit. |
| **5.** | **Measure Drawing (Drawing and Presentation)** |
| | • Introduction of unit<br>• Preparing drawings of the measured site<br>• Presentation of the final documented drawings<br>• Conclusion and summary of unit. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | FORM, SPACE, AND ORDER | Francis D.K. Ching | | |
| **2.** | Interior Design Reference Manual. | Ballast, David Kent | 2010 | Belmont, CA: Professional Publications Inc. |
| **3.** | Rendering with pen and ink ROBERT W. GILL How to design a Chair | Design Museum | | |

## F. EVALUATON

Continuous assessment of session work may consist of evaluation of project work, assignments etc.

| BIDCID2202 | Material Exploration Design & Model Making -II | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To introduce the advance methods of Material Exploration: Need; role of scale material exploration in design: general practices: Digitalmodels.
- To develop the understanding of various advance tools and machines employed, best practices involved in Material exploration the tools and the techniques. Making practical models.

## B. COURSE OUTCOMES

- CO1. Understand the use of advance materials and their uses in design and incorporating them in their projects. Materials for ex. Wire, Copper, Aluminum and othermetals
- CO2. Understand the use of advance materials and their uses in design and incorporating them in their projects. Materials for eq. Wood, Corketc.
- CO3. Understand the use of advance materials and their uses in design and incorporating them in their projects. Materials for ex. Soap, Clay, POP
- CO4. Understand the techniques of fusion by the use of advance materials and their uses in design and incorporating them in their projects. Materials for eq. Woodmetal
- CO5. Fuse different materials for making any product or to use them in any of the design projects

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | - | - | - | - | – | – | – | – | – | – | – |
| **CO2** | - | - | 3 | - | 2 | – | – | – | – | – | – | – |
| **CO3** | 3 | - | 3 | - | - | – | – | – | – | – | – | – |
| **CO4** | - | - | 3 | 3 | - | – | – | – | – | – | – | – |
| **CO5** | 3 | - | - | - | 3 | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 2 | - | - |
| **CO2** | 2 | 2 | 2 | 1 |
| **CO3** | 2 | 1 | 2 | 1 |
| **CO4** | 2 | 1 | 1 | 1 |
| **CO5** | 3 | 2 | - | - |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Exploration I** | 8 |
| 2 | **Exploration II** | 10 |
| 3 | **Exploration III** | 10 |
| 4 | **Fusion** | 10 |
| 5 | **Innovation** | 10 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Exploration I** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of various metals (eg. Wire, Copper, Aluminum and other metals etc.<br>• Exploration and Manipulation of these materials.<br>• Conclusion and summary of unit. |
| **2.** | **Exploration II** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of Wood, Cork etc.<br>• Exploration and Manipulation of these materials.<br>• Conclusion and summary of unit. |
| **3.** | **Exploration III** |
| | • Introduction of unit<br>• Understanding of basic material's behavior, characteristic, properties etc. of stone etc.<br>• Exploration and Manipulation of these materials.<br>• Conclusion and summary of unit. |
| **4.** | **Fusion** |
| | • Introduction to fusion of materials, Characteristics, Properties etc. techniques of fusion in Interior Design Studio |
| **5.** | **Innovation** |
| | • Creating 3D forms using the various techniques in carpentry by prototyping the IDS furniture. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Rendering with pen & ink | Robert W. Gill, | 1984 | Thames &Hudson Publishing |
| **2.** | A Foundation Course in Drawing: A Complete Program of Techniques and Skills, | Peter Stayner& Terry Rosenberg | 2003 | Arcturus Publishing Ltd. |
| **3.** | Color theory: An essential guide to color | Walter Foster Publishing. | 2013 | Chois Gallery Publishing |
| **4.** | Designers Color Manual: The complete guide to color theory & application, | Tom Fraser & Adam Banks | 2004 | Chronicle Books |

## F. EVALUATON

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

| BIDCID2203 | CARPENTRY & METAL SOLDERING | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To understand material and tools by making objects which allow students to explore Timber.
- To explore different joinery, support conditions under trained experiencedmaster craftsman.
- To communicate and establish dialogue between designed craftsskills.

## B. COURSE OUTCOMES

- CO1. Understand the basics of Furniture
- CO2. Understand the Construction and Tools and their uses to create an object.
- CO3. Understand the Construction Techniques of Plywood, type & sizes etc.
- CO4. Understand the Construction Techniques of Wooden floors and wall Paneling
- CO5. Design final prototype of furniture

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 2 | - | - | - | – | – | – | – | – | – | – |
| **CO2** | 3 | 2 | - | - | - | – | – | – | – | – | – | – |
| **CO3** | 2 | 3 | - | - | - | – | – | – | – | – | – | – |
| **CO4** | 3 | 2 | - | - | - | – | – | – | – | – | – | – |
| **CO5** | 3 | 2 | - | - | - | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 2 | - | - |
| **CO2** | 2 | 3 | - | - |
| **CO3** | 2 | 2 | 2 | - |
| **CO4** | 3 | 2 | - | - |
| **CO5** | 2 | 2 | 2 | - |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introducing** | **9** |
| **2** | **The basics of Furniture Construction and Tools** | **6** |
| **3** | **Plywood Construction Techniques** | **6** |
| **4** | **Wooden floors and wall Paneling** | **6** |
| **5** | **Furniture Model Making** | **9** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introducing** |
| | • Introduction ofunit<br>• Wood as a buildingmaterial.<br>• Introducing the techniques of planning, chiseling& jointing in timber to learnthe use of handtools.<br>• Timber– characteristics of good timber, defects, and applications of timber like joints etc. Finishes in timber like flooring, paneling etc. Finishes totimber.<br>• Conclusion and summary ofunit. |
| **2.** | **The basics of Furniture Construction and Tools** |
| | • Introduction ofunit<br>• Joints (eg. T-shaped joint, L-shaped joint, overlap joint, Tenon-mortise joint, halved joint, Cogged joint, Housed, notching joint, Notching joint, Bridal joint, Angle or corner joint. Measurement and measurement systems, Furniture Construction: Drawers, Cadenza, dining chairs, sofa, settee, cots detail. Preparation for finishing, Furniture Materials Specifying timber, finishesetc.)<br>• Conclusion and summary ofunit. |
| **3.** | **Plywood Construction Techniques** |
| | • Introduction ofunit<br>• Plywood as a building material, Layout techniques and machiningplans.<br>• Fabrication techniques - stapling,gluing.<br>• Furniture Joinery - screw joinery, nail joinery, Mortise &tenon joints,Dovetail joints, Dowel joints, Edgejoints.<br>• Conclusion and summary ofunit. |
| **4.** | **Wooden floors and wall Paneling** |
| | • Introduction ofunit<br>• Introduction to Types of floors, openings, staircases, roof forms etc.,their characteristics, Properties andconstruction.<br>• Conclusion and summary ofunit. |
| **5.** | **Furniture Model Making** |
| | • Exercise involving the design of simple furniture and making a model of the same. Preparation of block models of furniture using materials like wood, boards, leather, fabric, thermo-coal, clay, soap/wax etc. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | The book of the House, | BENN, | | Ernest Benn Limited, London |
| **2.** | Constructional Drawings & Architectural models | Jannsen, | 1973 | Karl Kramer Verlag Stuttgart |
| **3.** | The art of making furniture in miniature | Harry W.Smith, | 1982 | E.P.DuttorIn c., New York, |
| **4.** | Engineering materials | S. C. Rangwala | | Charotar Publishing, Anand |

NOTE: Metal Soldering will be taken as Interdepartmental workshop.

## F. EVALUATON

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

| BIDCID2204 | BASIC COMPUTERS & PRESENTATION SKILLS-II | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

To make students aware of the role of advanced computer applications in the field of Architecture as well as communication skills. The exercises will include corporate grooming, etiquettes, and effective communication & leadership skills.

## B. COURSE OUTCOMES

- CO1. Interpret effective verbal communication in terms of architectural and general presentations, leadership skills, etc.
- CO2. Utilize the interpolation skills for learning professional communication skills i.e. business emails, letters, applications, etc.
- CO3. Classify various corporate grooming and etiquettes w.r.t professionalism, appearance, body language, social verses workplace situations, etc.
- CO4. Appraise the software skill - AutoCAD & implementation of the same on Interior Design subject.
- CO5. Render a design project - Photoshop for rendering purpose & implementation of the same on Interior Design subject

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | 2 | – | – | – | – | – | – | – | - | - |
| CO2 | - | - | 2 | – | – | – | – | – | – | – | - | - |
| CO3 | 2 | - | - | – | – | – | – | – | – | – | 2 | - |
| CO4 | 3 | 2 | - | – | – | – | – | – | – | – | 3 | 2 |
| CO5 | 1 | 2 | 3 | – | – | – | – | – | – | – | 1 | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 1 | 1 | 2 |
| CO2 | 2 | 1 | 1 | 1 |
| CO3 | 1 | 2 | 1 | 1 |
| CO4 | 3 | 1 | 1 | 1 |
| CO5 | 2 | 1 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Verbal communication** | 6 |
| 2 | **Professional writing** | 6 |
| 3 | **Corporate Grooming & Etiquettes** | 9 |
| 4 | **Introduction to Auto CAD** | 9 |
| 5 | **Introduction to Rendering software** | 6 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Verbal communication** |
| | • Introduction ofunit<br>• Interpolation skills, leadership skills for Interior Designers |
| **2.** | **Professional writing** |
| | • Introduction ofunit<br>• Telephone etiquettes and business emails , letters & applications<br>• Conclusion and summary ofunit. |
| **3.** | **Corporate Grooming & Etiquettes** |
| | • Professionalism, working image, basics of business environment grooming-dress/ appearance, workplace versus social situations, business meetings, proper introductions and the “hand shake”<br>• Mock interviews & presentations |
| **4.** | **Introduction to Auto CAD** |
| | • How these software play an important role for an architect, basic fundamentals for these software Basic introduction of Auto CAD To use AutoCAD to make plans, sections and elevations by projecting lines and usage of layers in AutoCAD<br>• Exercise for drafting plans in AutoCAD, Exercise for drafting plans and elevations in AutoCAD, Exercise for drafting sections in AutoCAD |
| **5.** | **Introduction to Rendering software** |
| | • Basic introduction of Photoshop How to use tools for rendering, coloring and shading, etc. use of effects in the drawings<br>• Exercises on rendering software |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Life skills; A facilitator's guide for teenagers (www.unicef.org/eapro/life_skills_a_facilitators _guide_for_teenager.pdf) | CaiCai, MPP Harvard | | UNICEF |
| **2.** | Business Etiquette: A guide for the Indian professionals | Sheetalkakkar Mehra | 2012 | Collins Buisness |
| **3.** | Personality development and soft skills | Barun K. Mitra | 2016 | Oxford press |
| **4.** | Presentations (20 minute manager) | HBR | 2014 | Harvard Buisness Review press |

## F. EVALUATON

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

| BIDEID2101 | DRAWING, COLOR STUDY & GRAPHICS - II | 3Credit [LTP: 0-2-2] |
|---|---|---|

## A. OBJECTIVE

This course offers knowledge and experience about the classic drawing and sketching techniques and develops the appropriate skills for visualization and representation to facilitate effective visual communication

## B. COURSE OUTCOMES

- CO1. Developing drawing from imagination (sketching etc.)
- CO2. Understand the sketching techniques about 3D visualization of furniture.
- CO3. To understand rendering through different mediums.
- CO4. Developing representation skills for different types of views
- CO5. Understanding the phenomenon of sciography.

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Drawing from Imagination** | 12 |
| 2 | **Indoor sketching – furniture** | 9 |
| 3 | **Rendering techniques** | 9 |
| 4 | **Representation Drawings and Skills** | 9 |
| 5 | **Sciography** | 9 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| 1. | **Drawing from Imagination** |
| | • Introduction of unit<br>• Speculative sketching<br>• Concept sketches<br>• Presentation sketches & drawings |
| 2. | **Indoor sketching – furniture** |
| | • Introduction of unit<br>• Furniture sketches with basic outline work of varied types – chair, table, wardrobe, bed, etc.<br>• Conclusion and summary of unit. |
| 3. | **Rendering techniques** |

| | |
|---|---|
| | • Introduction of unit<br>• Introduction to pen and brush exercises<br>• Ink rendering<br>• Color rendering: Fuji colors, acrylic colors |
| **4.** | **Representation Drawings and Skills** |
| | • Introduction of unit<br>• Representation: Orthographic, Isometric & Perspective drawing of Complex objects and simple spaces |
| **5.** | **Sciography** |
| | • Introduction of unit<br>• Effect of light and shade on simple objects and forms |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Architectural Sketching and Rendering: Techniques for | Stephen Kliment | 1984 | Watson Guptill |
| | Designers and Artists | | | |
| **2.** | Sketching and Rendering of Interior Space | Ivo.D. Drpic | 1988 | Watson Guptill |
| **3.** | Design Drawing | Francis D.Ching | | Wiley Publications |
| **4.** | Perspective for Interior Designers | John. F. Pile | | Watson Guptill |
| **5.** | Perspective Drawing Hand book | Joseph D, Amelio | 2004 | Dover publications |

## A. EVALUATON

Continuous assessment of session work may consist of evaluation freehand drawing ofcomplex objects, spaces and the fundamental techniques of concept and presentation sketches.

# SYLLABUS

# III Semester

| BIDCID3101 | HISTORY OF INTERIOR DESIGN-II | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Understanding of progression of historical art forms arts, furniture styles, elements and motifs as a reflection of changing influences in the social and cultural context across world cultures and exploring it through design projects.

## B. COURSE OUTCOME

- CO1. Understanding the history of Interior design in Modernism Era.
- CO2. Understanding the history of Interior design in the Art Deco and Industrial era.
- CO3. Understanding the history of Interior design of early modernism in Europe and America.
- CO4. Understanding the history of the Ascendancy of modernism.
- CO5. Understanding the history of Interior design of the late Twentieth Century and Contemporary world

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | — | — | — | — | — | — | — | - | - |
| CO2 | - | - | 3 | — | — | — | — | — | — | — | - | - |
| CO3 | - | - | - | — | — | — | — | — | — | — | - | - |
| CO4 | - | 3 | - | — | — | — | — | — | — | — | - | 3 |
| CO5 | - | 3 | - | — | — | — | — | — | — | — | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 1 | 1 | 1 | 1 |
| CO2 | 1 | - | 3 | 1 |
| CO3 | 3 | - | - | 3 |
| CO4 | 1 | 1 | 1 | 3 |
| CO5 | 1 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | **The Modernism Era** | 4 |
| 2. | **Art Deco and Industrial era** | 4 |
| 3. | **Early modernism in Europe and America** | 6 |
| 4. | **Ascendancy of modernism** | 4 |
| 5. | **Twentieth Century and Contemporary world** | 6 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | **The Modernism Era** |
| | • The Early commissions<br>• The philosophy of F.L Wright<br>• Pioneers of the International Style<br>• Gropius and Bauhaus<br>• The philosophy of Mies Van der Rohe<br>• Philosophy of Le Corbusier and Alvar Aalto |
| 2. | **Art Deco and Industrial era** |
| | • Art Deco<br>• Expressionism<br>• Industrial Design<br>• Residential Design |
| 3. | **Early modernism in Europe and America** |
| | • The Netherlands, Germany and Austria, Italy Switzerland, Scandinavia<br>• Architects and Designers in Modern America<br>• Interior Decoration: The reaction to Modernism<br>• Furniture and other Interior Furnishings |
| 4. | **Ascendancy of modernism** |
| | • Italy<br>• Scandinavia<br>• France and Germany The Netherlands<br>• United States<br>• Furniture and other Interior Furnishings |
| 5. | **Twentieth Century and Contemporary world** |
| | • Prophets of Design<br>• High-Tech<br>• Post-Modernism<br>• The revival of Tradition<br>• Contemporary Interior design |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Art Deco Complete: The Definitive Guide to the Decorative Arts of the 1920s and 1930s | Alastair Duncan | 2009 | Harry N. Abrams |
| 2. | Creating Place in Early Modern European Architecture (Visual and Material Culture) | Elizabeth Merrill | 1981 | Amsterdam University Press |
| 3. | History of Architecture | Sir Banister Fletcher | | CBS Publishers & distributors, New Delhi |

## F. EVALUATON

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

| BIDCID3102 | MATERIAL STUDY - I | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Subject provides knowledge of the different Building materials used in interiors and exteriors. The objective of the course is:

- To create awareness about the properties of various materials used in the interiors and their application in various components of design, while highlighting current trends and innovations.
- To understand basic building material in the context of various construction methods.
- To focus on various building materials based on the performance, standards and codes, wherein application of each material would be discussed in detail, both in the context of historical and contemporary methodology.
- To study and compare the material and construction techniques.
- To focus on latest trends in practice and usage of new technology/materials

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Examine the critical role of materials and their application methods in a building construction.
- CO2. Understand the materials like Brick, rocks, stone, trees and timber in the context of Interior Design
- CO3. Gaining knowledge of all materials, their applications in various spaces in interiors and being updated with current market trends.
- CO4. Understand their properties, characteristics and applications in various design components like walls, floors, roofs, staircases, furniture finishes.
- CO5. Analyze building materials, its components, uses and techniques for construction.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO3** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO4** | - | 1 | - | – | – | – | – | – | – | – | - | 1 |
| **CO5** | - | 3 | 2 | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 1 |
| **CO2** | 2 | 1 | 2 | 1 |
| **CO3** | 2 | 2 | 1 | 1 |
| **CO4** | 1 | 1 | 1 | 3 |
| **CO5** | 1 | 1 | 2 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Rocks** | **5** |
| **2.** | **Bricks** | **5** |
| **3.** | **Stone** | **5** |
| **4.** | **Trees** | **5** |
| **5.** | **Timber** | **4** |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **ROCKS** |
| | • Introduction to the Unit<br>• Classification of rocks (Igneous, Sedimentary &Metamorphic)<br>• Geological, physical & chemical classification of rocks<br>• Sources of stones<br>• Rock-forming minerals<br>• Texture or structure of rock & its use in interiors.<br>• Conclusion & Summary of the unit. |
| **2.** | **BRICK** |
| | • Introduction to the Unit<br>• Comparison of brickwork and stonework<br>• Composition of good brick earth-Alumina, Silica, Lime, Oxide of iron, Magnesia<br>• Harmful ingredients in brick earth-Lime, Iron pyrites, Alkalies, Pebbles, Vegetation and organic, matter, etc.<br>• Classification of brick earth-Loamy, mild or sandy clay, Marls, chalky or calcareous clay, Plastic, strong or pure clay, etc.<br>• Manufacture of bricks, Properties of bricks& qualities of bricks<br>• Shape, tests, classification &uses of bricks<br>• Conclusion & Summary of the unit. |
| **3** | **STONE** |

| | |
|---|---|
| | • Introduction to the Unit<br>• Tests of stones & their uses in interiors.<br>• Qualities of a good building stone, stone quarrying, dressing of stone<br>• Deterioration, preservation of stones<br>• Artificial stones, Forms of artificial stones &Advantages of artificial stones<br>• Conclusion & Summary of the unit. |
| **4** | **TREES** |
| | • Introduction to the Unit<br>• Converted Timber, Rough Timber & Standing Timber<br>• Trees for life their innovative use in interiors.<br>• Classification of trees (Exogenous trees & Endogenous trees)<br>• Structure of a tree (Macrostructure & Microstructure)<br>• Conclusion & Summary of the unit. |
| **5** | **TIMBER** |
| | • Introduction to the Unit<br>• Defects, Qualities, decay and preservation in timber<br>• Advantages & Disadvantages of timber construction<br>• Uses of timber in interiors, Method of seasoning &Storage of timber<br>• Properties, characteristics and application of all the discussed materials in various design components like walls, floors, roofs, staircases, furniture finishes<br>• Market Survey of these materials. |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Engineering Materials | S.C. Rangwala | $28^{th}$ | Charatar Publishing house |
| 2. | Building Materials | P.C. Uarghese | 7th | Ashoke K. Ghosh |
| 3. | Elementary Building Construction | Moxley, R. Mitchell | | Technical Press Ltd. |
| 4. | K.P. Engineering Materials used in India. | Chowdary | 7th | Oxford and IBH, New Delhi,1990 |
| 5. | Building Construction Illustrated | Francis D. Ching | | Wiley publishers, 2008. |
| 6. | Building Construction: Planning Techniques and Methods of Construction | Bindra, S.P. and Arora | 19th | Dhanpat Rai Pub., New Delhi, 2000 |

## F.EVALUATON

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

| BIDCID3201 | INTERIOR DESIGN STUDIO – II | 6 Credit [LTP: 1-0-4] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To help students to understand the character and nature of spaces, scale, and various layers of design within a space.
- To apply principles of aesthetics, function, and narrative in design.
- To communicate abstract and functional ideas in graphical form
- To impart an understanding of perception of interior space through design elements. This course focuses on the practical application of all the subjects in the design studio.
- For the entire semester, you will take up a single design project – an **Individual Habitat Space (Apartment, Bungalow etc.)**, which is divided into three stages: Habitation, Transformation, and Expansion. Each of the stages builds on the learning of the prior stage, as well as research carried out in the other subjects taken during the semester.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Observe, research, document, and apply ergonomic and anthropometric aspects of interior design with respect to individual habitats.
- CO2. Understand the relationship between scale, volume, activity, sequence of movement, perception, and aesthetic principles within individual spaces.
- CO3. To understand all the dynamics involved within the design problem introduced
- CO4. To Ideate, Innovate and Experiment with the design form, spaces, inter-relationship in all functions, zoning, etc.
- CO5. To transfer the conceptual idea into drawings and detailed design

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO3** | - | 2 | - | – | – | – | – | – | – | – | - | 2 |
| **CO4** | 3 | 2 | - | – | – | – | – | – | – | – | 3 | 2 |
| **CO5** | - | 3 | 3 | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 1 |
| **CO2** | 3 | 1 | 2 | 1 |
| **CO3** | 2 | 1 | 1 | 3 |
| **CO4** | 2 | 1 | 2 | 1 |
| **CO5** | 3 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Introduction to Design Process** | 24 |
| 2 | **Pre-Design Studies & project brief** | 16 |
| 3 | **Zoning & spatial planning** | 16 |
| 4 | **Concept Ideation and development** | 16 |
| 5 | **Design documentation and development** | 24 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction to Design Process** |
| | • Introduction of design problem<br>• Lecture on basic design process including user needs, program analysis, area analysis, market survey, site analysis etc.<br>• Discussion based on the existing exercise and the understanding of students. |
| **2.** | **Pre-Design Studies & project brief** |
| | • Case Studies/ Standards/ Anthropometrics/ Literature Studies.<br>• Understanding Project Brief/ Drawing of Spaces & Area/ Requirement and how to read a project brief. Which includes interior designing of a habitat space.<br>• Identifying the design scope & limitations.<br>• Critical analysis of case studies and inferences outcome.<br>• Conclusion and summary of unit. |
| **3.** | **Zoning & spatial planning** |
| | • Introduction of unit<br>• Compilation of Site Analysis/ Zoning/ Bubble Diagram and Circulation Diagram/ Site Planning<br>• Formulation of design through elements and principles of design.<br>• Applications of Ordering principal such as axis, symmetry, hierarchy, datum, rhythms, repetition, visual perception proximity, repetition, simplest and largest figure, continuity and closure, figure and ground relationship<br>• Research on Design Styles. |

| | |
|---|---|
| | • Conclusion and summary of unit. |
| **4.** | **Concept Ideation and development** |
| | • Introduction of unit<br>• Concept Drawing and Design/ Plans/ Sections/ Elevation/ Views and Models<br>• Creating Design options based on the approved concept<br>• Creating Plans, elevations & sections of the final Design.<br>• Conclusion and summary of unit. |
| **5.** | **Design documentation and development** |
| | • Documentation of the design project in the desired medium, with views and models. |

**NOTE:** *The student should have a plan ready before starting the design project. The students will only work on interior spaces of the Project.*

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Designs for 20th century Interiors | Fiona Leolie | 2000 | VH Publications, London |
| 2. | Interior Design; The New Freedom | BarbaralecDiamonstein | 1982 | Rizzoli International Publications, New York, |
| 3. | Interior Colour by Design | Jonathan Poore | 1994 | Rockport Publishers |
| 4. | Worldwide Interiors – International Federation of Interior Architects & Designers, | Rikuyo-Sha | 1987 | Japan, |
| 5. | Time Saver Standards for Interior Design | Joseph De Chiara | Latest | McGraw Hill, New York |

## F. EVALUATON

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

| BIDCID3202 | FURNITURE DESIGN-I | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

To acquire practices of craftsmanship and sensitize the student's visual perception of furniture as a single form through the study and presentation of precedent works - both historical and contemporary & to cultivate the ability necessary to design by understanding he user-activity, structural concepts of furniture, materials and their essential attributes.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. To impart the knowledge of various styles, systems and products available in the market.
- CO2. Enhances the knowledge of ergonomics, materials, design and working parameters in designing furniture.
- CO3. To gain knowledge about the history of furniture.
- CO4. To identify different furniture systems.
- CO5. To know about the furniture detailing & its construction. To learn to implement furniture design into design project.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 3 | - | - | - | – | – | – | – | – | – | – |
| **CO2** | - | - | - | 3 | - | – | – | – | – | – | – | – |
| **CO3** | - | - | - | 3 | - | – | – | – | – | – | – | – |
| **CO4** | - | - | 3 | - | 3 | – | – | – | – | – | – | – |
| **CO5** | - | - | 3 | 1 | 2 | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 1 | 1 | 1 | 1 |
| **CO2** | 2 | 2 | - | 2 |
| **CO3** | 1 | 1 | - | 3 |
| **CO4** | 2 | 2 | - | 1 |
| **CO5** | | | | |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Introduction** | **9** |
| **2.** | **History of Furniture** | **9** |
| **3.** | **Furniture Systems** | **10** |

| | | |
|---|---|---|
| **4.** | **Furniture Detailing and Construction** | **10** |
| **5.** | **Implementation in Design Problem** | **10** |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction** |
| | • Introduction to Furniture Design.<br>• Human factors, engineering and ergonomic considerations.<br>• Principles of universal design and their application in furniture design.<br>• Overview of Furniture categories.<br>• Exploration of the idea of furniture, role of furniture in interior design,<br>• Design approaches in furniture design. |
| **2.** | **History of Furniture** |
| | • Awareness of the relationship of design history in order to create new designs in furniture.<br>• An outline of the evolution of furniture from Ancient to present:<br>• Various stylistic transformations.<br>• Furniture designers and movements.<br>• Exploration of furniture in terms of human values, social conditions, technology and design criteria.<br>• Understanding the current design trends and the future visions in the field of furniture design. |
| **3.** | **Furniture Systems** |
| | • Furniture design for various context and spaces – residences, corporate, commercial etc. in terms of Seating design; Storage systems- kitchen cabinets, wardrobes, closets, book shelves, showcases, display systems etc.;<br>• Multi-functional & space-saving furniture; modular approach to furniture design. |
| **4.** | **Furniture Detailing and Construction** |
| | • Introduction to different materials, joinery details and manufacturing methods most frequently adopted in furniture design such as Injection Molding, investment casting, sheet metal work, die casting, blow-molding, vacuum - forming etc. |
| **5.** | **Implementation in Design Problem** |
| | • Exercise oriented by innovative explorations, observation and constrains, to design a furniture, by providing measured drawing – plan, elevation and detailing on full scale, supported by prototype. |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | The Encyclopedia of Furniture | Joseph Aronson | Third Edition 1961 | |
| 2. | Mid-Century Modern: Interiors, Furniture, Design Details | Bradley Quinn | 2006 | |
| 3. | Furniture: A Concise History (World of Art) | Edward Lucie Smith | 1985 | Thames and Hudson |

## F. EVALUATON

Continuous assessment of session work may consist of evaluation of individual's work.

| BIDCID3203 | BUILDING SERVICES-I | 2 Credit [LTP: 1-0-2] |
|---|---|---|

# A. OBJECTIVE

The course provides an understanding of the Building services for Spaces in Building. The students learn about the basic concepts of the various elements that help in the functioning of the proper services of a complex interior environment such as a residential/ commercial/ Commercial & Retail /institutional space.

The objective of the course is:

- To understand the importance of human comforts in interior space and built environments
- To understand Built forms in context of environmental climatology and artificial environments for interiors
- To understand the importance of Services and linkages in the context of Interior Design
- To develop an appreciation of Electrical, Plumbing and HVAC as the spine of interior architecture and design solutions

# B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Develop critical appreciation and understanding of basic service (Electrical/plumbing/HVAC) solutions for interior spaces.
- CO2. Describe the processes involved in developing services and linkages for interior spaces and built environments.
- CO3. Observe report and analyze the impact of services on interior spaces.
- CO4. Describe theories for services and linkages, context, technology, current trends and strategies for services design for built environments.
- CO5. Develop awareness of innovative, functional and appropriate service design solutions catering to specific briefs, for different interior spaces.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | - | 3 | 2 | – | – | – | – | – | – | – | - | 3 |
| **CO3** | 3 | - | - | – | – | – | – | – | – | – | 3 | - |
| **CO4** | - | 3 | - | – | – | – | – | – | – | – | - | 3 |
| **CO5** | - | 3 | 2 | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 1 |
| **CO2** | 2 | 1 | 1 | 2 |
| **CO3** | 1 | 2 | 1 | 2 |
| **CO4** | 1 | 1 | 1 | - |
| **CO5** | 1 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | **Electrical Distribution** | 7 |
| 2. | **Mains and Sub Distribution** | 7 |
| 3. | **Layout System** | 7 |
| 4. | **Service Systems** | 7 |
| 5. | **Quality and Quantity of different Sources of light** | 8 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | **Electrical Distribution** |
| | • Introduction of unit<br>• Lighting and vision, basic units, photometry and measurement.<br>• Effects of good lighting, considerations for good lighting, brightness, glare, contrast and diffusion.<br>• Economic issues of lighting.<br>• Importance of electrical distribution,<br>• Day light – advantages, admitting daylight, controlling daylight – multiple glazing, orientation, window treatments, potentials of day lighting as an energy resource.<br>• Artificial lighting - color characteristics of artificial lighting, integration of day lighting with artificial lighting, lighting controls, intelligent building systems for lighting, switches, dimmers.<br>• Types of electrical distribution systems, wiring system<br>• Conclusion and summary of unit. |
| 2. | **Mains and Sub Distribution** |
| | • Introduction of unit<br>• Laws of illumination, switches and controls, general aspects of design of electrical domestic installations, power and light loads, MCB, MCCB,SFU, ELCB.<br>• Conclusion and summary of unit. |
| 3 | **Layout System** |
| | • Introduction of unit<br>• Classification of voltages, Layout system for lighting, fans, telephones<br>• Types of lighting.<br>• Conclusion and summary of unit. |

| 4 | **Service Systems** |
|---|---|
| | • Introduction of unit<br>• Lifts, pumps, air-conditioning system, computer systems, etc. pipe and plate earthing, lighting protection in buildings.<br>• Conclusion and summary of unit. |
| **5** | **Quality and Quantity of different Sources of light** |
| | • Introduction of unit<br>• Lighting, Design for lighting, Classification of lighting. Fixtures &Fittings available in the market.<br>• Daylight, incandescent, fluorescent, halogen, electric gas discharge high discharge, neon, cold cathode, mercury, sodium vapor etc. lighting levels, visual field. Survey of lamps available in the market with cost and technical specifications.<br>• Lamps and lighting fixtures – Floor, table and desk, wall mounted, ceiling units, built in lighting, miscellaneous types, decorative lighting, spot lighting, task lighting, underwater lighting etc.<br>• Conclusion and summary of unit. |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Electrical Design, Estimating and costing | K. B. Raina, S. K. Bhattacharya | | |
| 2. | Electrical wiring, Estimating and costing | S.L.Uppal | 2005 | Khanna Publishers, New Delhi |
| 3. | Electrical wiring | J. B. Gupta, | 2005 | S.K. Kataria& Sons, Delhi |
| 4. | Bureau of Indian Standards – IS 732, IS 742, IS 3043 | | | |
| 5. | National electrical Code (NEC) | | | |
| 6. | House Wiring Hand Book, | | | International Copper Promotion Council (India), Power |
| 7. | Guide for Electrical Layout in Residential Building | | IS464 81 968 | Bureau of India Standards, Delhi |

## F. EVALUATON

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

| BIDCID3204 | COMPUTER APPLICATION - III | 2 Credit [LTP: 2-0-2] |
|---|---|---|

# A. OBJECTIVE

Exposure to CAD will help students to produce their operation and critical parameters. Presentations for large gatherings, corporate clients-using CAD drawings, pictures, 3D images, text etc.

The objective of the course is:

- To develop advanced 2D design exploration, drafting and visualization skills using AutoCAD and develop advanced modeling and presentation skills for interior design
- To initiate, scope, execute, and validate self-directed/ client projects using AutoCAD.
- To introduce the fundamental concepts of computer systems; hardware and software and to develop basic skills in programming, Application of Information Technology tools and technical in Architecture.

# B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Identify the process of visualizing in depth and detail in AutoCAD and related software's.
- CO2. Develop an understanding of AutoCAD as a vital tool that aids the designer in visualizing, detailing, costing and presenting interior design projects.
- CO3. Demonstrate an understanding of the symbiosis of conceptual and technical skills required by a designer, to cope with industry changes, and the impact of new technologies.
- CO4. Understand the role of AutoCAD in the ongoing evolution of the practice of Interior design & Architecture
- CO5. Develop and synthesize an effective, aesthetically pleasing, appropriate, innovative, persuasive3D

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | 2 | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | 2 | – | – | – | – | – | – | – | - | - |
| **CO3** | 2 | - | - | – | – | – | – | – | – | – | 2 | - |
| **CO4** | 3 | 2 | - | – | – | – | – | – | – | – | 3 | 2 |
| **CO5** | 1 | 2 | 3 | – | – | – | – | – | – | – | 1 | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 2 |
| **CO2** | 2 | 1 | 1 | 1 |
| **CO3** | 1 | 2 | 1 | 1 |
| **CO4** | 3 | 1 | 1 | 1 |
| **CO5** | 2 | 1 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Introduction to Auto CAD** | **9** |
| **2.** | **Map Digitization on AutoCAD** | **9** |
| **3.** | **Advance AutoCAD** | **6** |
| **4.** | **Introduction to 3D Drafting** | **6** |
| **5.** | **Rendering and Presentation** | **6** |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction to Auto CAD** |
| | • Introduction to the Unit<br>• Basic introduction of Auto CAD, basic commands like line, trim, move, copy, circle, etc. To use AutoCAD to make plans, sections and elevations by projecting lines and usage of layers<br>• Conclusion in AutoCAD. & Summary of Unit |
| **2.** | **Map Digitization on AutoCAD** |
| | • Introduction to the Unit<br>• To use AutoCAD for rasterizing a scanned map.<br>• Conclusion & Summary of the unit. |
| **3.** | **Advance AutoCAD** |
| | • Introduction to the Unit<br>• Introduction to Unit, Drafting in layers, altering layer properties, Dimensioning and dimensioning styles, important commands like Blocks, align, xref etc., Tagging in AutoCAD.<br>• Conclusion & Summary of the unit. |
| **4.** | **Introduction to 3D Drafting** |
| | • Introduction to the Unit<br>• Introduction to 3D modeling techniques and construction planes, drawing objects, 3D surfaces, setting up elevation and thickness, and use of dynamic projections. Solid modeling with driving, primitive command and Boolean operations. Use of region modeling & solid modifiers.<br>• Conclusion & Summary of the unit. |
| **5.** | **Rendering and Presentation** |

| | |
|---|---|
| | • Introduction to the Unit<br>• Rendering and presentation of your current design project.<br>• Printing and plotting.<br>• Conclusion & Summary of the unit. |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | principles of Computer Programming | V. Rajaraman, | | Prentice Hall of India |
| 2. | Auto CAD Reference Manual | | 1998 | Autodesk UNC |

## F. EVALUATON

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

| BIDCID3205 | BUILDING CONSTRUCTION - I | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To focus on various building materials and construction techniques.
- To emphasize on the performing standards and codes.
- To understand application of each material in detail, both in the context of historical and contemporary methodology. With time, each topic can also focus on latest trends in practice and usage of new technology/materials.
- To understand importance of water proofing and damp proofing in building construction.
- To strengthen student's knowledge about reinforced cement concrete and its applications in buildings.
- To equip students about the methods of designing various structural members using reinforced cement concrete.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the construction of Brick Masonry, types of brick masonries.
- CO2. Understand the construction types of Stone Masonry & brick masonries.
- CO3. Understand the construction of Foundation & Superstructure, types of foundations and the details about the entire one wall of a building.
- CO4. Understand the construction with Spanning of Openings
- CO5. Understand the construction of Earthquake Resistant Masonry Construction

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | 2 | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO3** | 3 | 2 | 1 | – | – | – | – | – | – | – | 3 | 2 |
| **CO4** | 3 | - | 3 | – | – | – | – | – | – | – | 3 | - |
| **CO5** | 1 | 2 | 2 | – | – | – | – | – | – | – | 1 | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 2 |
| **CO2** | 2 | 1 | 1 | 1 |
| **CO3** | 2 | 2 | 1 | 2 |
| **CO4** | 2 | 1 | 1 | 2 |
| **CO5** | 2 | 1 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | **Introduction to Brick Masonry** | 7 |
| 2. | **Introduction to Stone Masonry** | 7 |
| 3. | **Foundation & Superstructure** | 7 |
| 4. | **Spanning of Openings** | 7 |
| 5. | **Earthquake Resistant Masonry Construction** | 8 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | **Introduction to Brick Masonry** |
| | • Introduction to the Unit<br>• Types of brick bats &closers<br>• Types of Brick bonds for wall masonry- half, single, one & half thick wall, Cavity wall, Jointing & pointing & bonding of bricks<br>• Wall section (plinth, floor, sill, lentil, roof &parapet)<br>• Conclusion & Summary of the unit. |
| 2. | **Introduction to Stone Masonry** |
| | • Introduction to the Unit<br>• Types of stonemasonry<br>• Random rubble masonry – Coursed & un-coursed, Square rubble brought to course, Square rubble course<br>• Ashlar Masonry.<br>• Conclusion & Summary of the unit. |
| 3. | **Foundation & Superstructure** |
| | • Introduction to the Unit<br>• General introduction to types of foundation<br>• Foundation in brick & stonemasonry<br>• General introduction to types of superstructure<br>• Roofing systems<br>• Stone flooring and Brick flooring.<br>• Conclusion & Summary of the unit. |
| 4. | **Spanning of Openings** |

| | |
|---|---|
| | • Introduction to the Unit<br>• Lintels in Stone and brick masonry<br>• Introduction to various types of arches<br>• Construction of Brick & Stone arches<br>• Conclusion & Summary of the unit. |
| **5.** | **Earthquake Resistant Masonry Construction** |
| | • Introduction to the Unit<br>• Introduction to Earthquake resistant Masonry Construction<br>• Construction details of Earthquake resistant brick and stone masonry and additional provisions made to it.<br>• Dry stone masonry<br>• Conclusion & Summary of the unit. |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Building construction | B.C.Punmia | $10^{th}$ | Laxmi publication |
| 2. | Building construction | S.C.Rangwala | $29^{th}$ | Charatar publication |
| 3. | A Text Book of Building Construction | S.P.Arora, S.P.Bindra | $5^{th}$ | Dhanpat Rai publication |
| 4. | Building construction illustrated | FRANCIS D. K. CHING | $3^{rd}$ | |
| 5. | Building Constructions (1 to 4 vol.) | Mckay, W.B. | | |

## F. EVALUATION

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

# SYLLABUS

# IV Semester

| BIDCID4101 | THEORY OF INTERIOR FURNISHING | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To understand one of the most important steps to bring a design to life is by actually constructing and this subject introduces students to the basics of interior construction.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the composition, construction, and finishes applied on fabrics for
- Furnishings.
- CO2. Analyze recent trends in furnishings
- CO3. Gather information on various household linen, their selection and care.
- CO4. Adopt various window treatments in interiors.
- CO5. Apply the, Residential security systems, Commercial security in their projects

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 1 | – | 2 | – | – | – | – | – | – | – | 1 | – |
| CO2 | 1 | 1 | 1 | – | – | – | – | – | – | – | 1 | 1 |
| CO3 | 1 | – | 1 | – | – | – | – | – | – | – | 1 | – |
| CO4 | 2 | – | 1 | – | – | – | – | – | – | – | 2 | – |
| CO5 | 1 | – | 1 | – | – | – | – | – | – | – | 1 | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 1 | 1 | 2 | 2 |
| CO2 | 1 | 1 | 3 | 1 |
| CO3 | 2 | - | 2 | 2 |
| CO4 | 1 | 1 | 1 | 3 |
| CO5 | 1 | 1 | 2 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | Home Furnishings | 6 |
| 2. | Commercial Furnishings | 6 |
| 3. | Security System | 4 |
| 4. | Lighting Fixtures | 4 |
| 5. | Other Fixtures | 4 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | **Home Furnishings** |
| | • Introduction of unit<br>• Develop a motif suitable for foot mat, window grill, table mat and furnishing materials. Window Treatments – Types of windows, curtains, draperies, hanging curtains, pelmets and valances, accessories, blinds, shades. Cushion, cushion covers, Slip covers, bed linens, and Table linens.<br>• Conclusion and summary of unit. |
| 2. | **Commercial Furnishings** |
| | • Introduction of unit<br>• Introduction, Venetian Blinds, Modern furnishing materials, Partitions etc.<br>• Conclusion and summary of unit. |
| 3. | **Security System** |
| | • Introduction of unit<br>• Introduction, Residential security systems, Commercial security Systems.<br>• Conclusion and summary of unit. |
| 4. | **Lighting Fixtures** |
| | • Introduction of unit<br>• Introduction, types of light fixtures, decorative fixtures etc.<br>• Conclusion and summary of unit. |
| 5. | **Other Fixtures** |
| | • Introduction of unit<br>• Furniture fixtures, Decorative etc.<br>• Conclusion and summary of unit. |

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Inside today's home | Faulkner, R.and Faulkner | Latest | Rinebart Winston, New York |
| 2. | Interior Design & Decoration | SherrilWhiton | Latest | Prentice Hall |
| 3. | Introduction to home furnishings | Stepat,D.D | Latest | The macmillancompany,New York |
| 4. | The themes and Hudson manual of textile printing | Storeyjoyce | Latest | London |
| 5. | Colour in interior Design | Jhon,F.P | Latest | Mc Graw Hill Company |

## F. EVALUATION

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

| BIDCID4102 | MATERIAL STUDY – II | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Subject provides knowledge of the different Building materials used in interiors and exteriors.

The objective of the course is:

- To understand advance building material in the context of various construction methods.
- To focus on various building materials based on the performance, standards and codes, wherein application of each material would be discussed in detail, both in the context of historical and contemporary methodology.
- To study materials and systems, application of building materials such as Mud, Sand, Lime, Cement & Coarse Aggregates, Plastic & Polymers, Glass & Ceramic, Wood, etc., their properties and applications, and their intrinsic relationship to structural systems and environmental performance.
- To study and compare the material and construction techniques.
- To focus on latest trends in practice and usage of new technology/materials.

# B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Measure the required physical, chemical and engineering properties of Building Materials.
- CO2. Select the appropriate construction materials as per construction activities and specifications.
- CO3. Perform the different test for quality assurance of Building Materials.
- CO4. Select and justify appropriate advanced and modern building materials for various applications.
- CO5. Ascertain the current market price of each and every construction material.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO2 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO3 | - | - | 3 | – | – | – | – | – | – | – | - | - |
| CO4 | - | 3 | - | – | – | – | – | – | – | – | - | 3 |
| CO5 | - | 3 | - | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 1 | 1 | 1 |
| CO2 | 2 | 1 | 2 | 1 |
| CO3 | 2 | 2 | 1 | 1 |
| CO4 | 1 | 1 | 1 | 3 |
| CO5 | 1 | 1 | 2 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | Sand, Mud & Lime | 5 |
| 2. | Cement & Coarse Aggregates | 5 |
| 3. | Plastic & Polymers | 4 |
| 4. | Glass & Ceramic | 5 |
| 5. | Wood & it's Derivatives | 5 |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| 1 | **Sand, Mud & Lime** |
| | • Introduction of unit<br>• Sources of sand & impurities in sand, processing of sand. Classification of sand- pit, river sand, and their properties Alternate fine aggregate: Stone dust.<br>• Properties and characteristics of mud used for binding material in masonry<br>• Different forms of mud construction, Compressed Stabilized earth blocks(CSEB)<br>• The nature of material, visual and textural properties.<br>• Classification and types of lime- Quick & Process of making lime mortar for masonry<br>• Sources of lime and constituents of limestone, Slaking of quicklime<br>• Conclusion and summary of unit. |
| 2 | **Cement & Coarse Aggregates** |
| | • Introduction of unit<br>• Mortars, concrete and RCC preparation,<br>• Classification<br>• Conclusion and summary of unit. |
| 3 | **Plastic & Polymers** |
| | • Introduction of unit<br>• History, composition, uses, properties etc. Polymerization, classification, resins, fabrication, properties, and uses of plastics.<br>• Conclusion and summary of unit.<br>• |

| | |
|---|---|
| **4** | **Glass & Ceramic** |
| | • Introduction of unit<br>• Classification, composition, properties, types, manufacturing process, treatment of glass, special<br>• varieties of glass etc. |
| **5** | **Wood & it's Derivatives** |
| | • Introduction of unit<br>• Veneers, ply boards (advantages and disadvantages of ply boards), industrial timber, industrial form batten, baulk, board, deal, end, hog, plak, pole, quartering, scantling.<br>• Conclusion and summary of unit. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Engineering Materials | S.C. Rangwala | $28^{th}$ | Charatar Publishing House |
| 2. | Building Materials | P.C. Uarghese | $7^{th}$ | Ashoke K. Ghosh |
| 3. | Building Materials | S.K. Duggal | $3^{rd}$ | New Age International |

## F. EVALUATON

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

| BIDCID4201 | INTERIOR DESIGN STUDIO - III | 6 Credit [LTP: 1-0-5] |
|---|---|---|

## A. OBJECTIVE

Students must be able to present a project graphically in a medium and a format that enhance the solution to a design problem and communicate clearly to the audience. In this course, students will learn to use a variety of tools and the vocabulary to present their designs in the most effective way.

Site visits will be conducted to understand the nature of project. Group discussions among students are encouraged. This course introduces commercial design for small offices.

The objective of the course is:

- To understand multi-functional workspaces.
- To develop knowledge of complex design principles and processes in the context of interior personal habitats.
- To apply principles of aesthetics, function, and narrative in design.
- To communicate abstract and functional ideas in written, verbal, and graphical form.
- for the entire semester, you will take up a single design project – an commercial building including office space, workspace interiors

# B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Observe, research, document, and apply ergonomic and anthropometric aspects of interior design with respect to individual workspace.
- CO2. Understand the importance of case studies, and learn to do so.
- CO3. To learn to develop design concepts for the design problem introduced.
- CO4. To learn to transfer the conceptual idea into drawings & prepare technical design drawings for a workspace.
- CO5. To and detailed design

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | — | — | — | — | — | — | — | - | - |
| **CO2** | - | - | - | — | — | — | — | — | — | — | - | - |
| **CO3** | - | 2 | - | — | — | — | — | — | — | — | - | 2 |
| **CO4** | 3 | 2 | - | — | — | — | — | — | — | — | 3 | 2 |
| **CO5** | - | 3 | 3 | — | — | — | — | — | — | — | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 1 |
| **CO2** | 3 | 1 | 2 | 1 |
| **CO3** | 2 | 1 | 1 | 3 |
| **CO4** | 2 | 1 | 2 | 1 |
| **CO5** | 3 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction to design Project** | **20** |
| **2** | **Case Studies** | **20** |
| **3** | **Design Concept** | **20** |
| **4** | **Technical drawings** | **20** |
| **5** | **Layout Plans** | **20** |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction to design Project** |
| | • To introduce to students, the design of a building with complexities related to workspaces, services, structures and site planning.<br>• Conclusion and summary of unit. |
| **2.** | **Case Studies** |
| | • Introduction of unit.<br>• Understanding the role & process of a case study.<br>• Choose & select relevant case examples related to your project.<br>• Understanding the principles and standards of workspace and also the anthropometry and ergonomics inside a given space. |

| | |
|---|---|
| | • Study and analyze an existing workspace w.r.t. the design project. |
| **3.** | **Design Concept** |
| | • Developing concepts for the design project.<br>• To help students evolve their design by understanding relationship between form, function and space.<br>• Explain your design idea with the help of sketches. |
| **4.** | **Technical drawings** |
| | • Plan, Sectional Elevation**,** furniture layout.<br>• Detailed interior drawings.<br>• Make appropriate furniture details. |
| **5.** | **Layout Plans** |
| | • Electrical layout.<br>• Lighting layout.<br>• Plumbing layout<br>• Flooring pattern<br>• Ceiling plan<br>• Wall finishes |

**MODEL**

## EXERCISE/ ASSIGNMENTS/ PROJECTS:

Project: COMMERCIAL INTERIORS/ OFFICES / CORPORATE OFFICES.

## E. RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Designs for 20th century Interiors | Fiona Leolie | 2000 | VH Publications, London |
| 2. | Interior Design; The New Freedom | BarbaralecDiannstein | 1982 | Rizzoli International Publications, New York, |
| 3. | Interior Colour by Design | Jonathan Poore | 1994 | Rockport Publishers |
| 4. | Worldwide Interiors – International Federation of Interior Architects & Designers, | Rikuyo-Sha | 1987 | Japan, |
| 5. | Time Saver Standards for Interior Design | Joseph De Chia | Latest | McGraw Hill, New York |
| 6. | Commercial Space, Office Design and Layout | Cerver FA | | Rotovision S A |

## F. EVALUATON

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

| BIDCID4202 | FURNITURE DESIGN - II | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVES:

This course aims to learn the dimensions and the availability of designs used for furniture based on of ergonomics applied to furniture design that related end-user needs. The subject orient students about the basic aspects of furniture design studio, and primary aspects attributed to it.

## B. COURSE OUTCOME

After studying this course you should be able to:

- Understand the importance of furniture design into interiors.
- Understand the different types of manufacturing process.
- Develop an understanding for advanced furniture systems
- Develop a better understanding about furniture design through case specific examples.
- Get efficient enough to apply the knowledge for current project & develop furniture designs for the same.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO2 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO3 | - | 2 | - | – | – | – | – | – | – | – | - | 2 |
| CO4 | 3 | 2 | - | – | – | – | – | – | – | – | 3 | 2 |
| CO5 | - | 3 | 3 | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 1 | 1 | 1 |
| CO2 | 3 | 1 | 2 | 1 |

| | | | | |
|---|---|---|---|---|
| **CO3** | 2 | 1 | 1 | 3 |
| **CO4** | 2 | 1 | 2 | 1 |
| **CO5** | 3 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Introduction to Furniture design** | **8** |
| **2.** | **Manufacturing Processes** | **8** |
| **3.** | **Advanced Furniture Systems** | **8** |
| **4.** | **Furniture Case-studies** | **12** |
| **5.** | **Design Problem** | **12** |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction to Furniture design** |
| | • Introduction of unit<br>• Human factors, engineering and ergonomic considerations: principles of universal design and their application in furniture design, overview of Furniture categories, exploration of the idea of furniture,<br>• Role of furniture in interior design,<br>• Design approaches in furniture design.<br>• Conclusion and summary of unit. |
| **2.** | **Manufacturing Processes** |
| | • Introduction of unit Study case examples of the following types of manufacturing processes:- Injection, Molding, Investment casting, Sheet metal work, Die casting, Blow- molding, Vacuum – Forming. |

| | |
|---|---|
| **3.** | **Advanced Furniture Systems** |
| | • Introduction of unit<br>• Furniture design for large scale multi-functional spaces – residences, corporate, commercial etc. in terms of Seating design; Storage systems- kitchen cabinets, wardrobes, closets, book shelves showcases, display systems etc.; multi-functional & space-saving furniture; modular approach to furniture design.<br>• Conclusion and summary of unit. |
| **4.** | **Furniture Case-studies** |
| | • Introduction of unit<br>• Study innovative & advanced contemporary furniture designs (seating / storage).<br>• Conclusion and summary of unit. |
| **5.** | **Design Problem** |
| | • Introduction of unit<br>• Exercise oriented by innovative explorations, observation and constrains, to design furniture, by providing measured drawing – plan, elevation and detailing on full scale, Conclusion and summary of unit of current design project. |

## E. RECOMMENDED STUDY MATERIAL

| S. N | Reference Book | Author | Publication |
|---|---|---|---|
| 1 | The Encyclopedia of Furniture | Joseph Aronson, | 3rd edition |
| 2 | Mid-Century Modern: Interiors, Furniture, Design Details | Bradley Quinn, | Conran Octopus Interiors |
| 3 | Furniture Design | Jim Postell, | |
| 4 | Furniture: A Concise History (World of Art) | Edward Lucie-Smith | |
| 5 | History of Interior Design and Furniture | Robbie. G. Blakemore | |

## F. EVALUATON

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

| BIDCID4203 | BUILDING SERVICES – II | 2 Credit [LTP: 1-0-2] |
|---|---|---|

## A. OBJECTIVE

The course provides an understanding of the Building services for Spaces in Building. The students learn about the basic concepts of the various elements that help in the functioning of the proper services of a complex interior environment such as a residential/ commercial/ Commercial & Retail /institutional space.

The objective of the course is:

- To understand the importance of human comforts in interior space and built environments
- To understand Built forms in context of environmental climatology and artificial environments for interiors
- To understand the importance of Services and linkages in the context of Interior Design
- To develop an appreciation of Electrical, Plumbing and HVAC as the spine of interior architecture and design solution

## B. COURSE OUTCOME

After studying this course you should be able to:

- Develop critical appreciation and understanding of basic service (Electrical/plumbing/ HVAC) solutions for interior spaces.
- Describe the processes involved in developing services and linkages for interior spaces and built environments.
- Observe, report and analyze the impact of services on interior spaces.

- Understand material choices for designed interiors in the context of climate and services.
- Describe theories for services and linkages, context, technology, current trends and strategies for services design for built environments.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | 3 | - | - | – | – | – | – | – | – | – | 3 | - |
| **CO3** | - | 2 | - | – | – | – | – | – | – | – | - | 2 |
| **CO4** | - | 2 | 2 | – | – | – | – | – | – | – | - | 2 |
| **CO5** | - | 3 | 3 | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 1 |
| **CO2** | 1 | 2 | 1 | 3 |
| **CO3** | 1 | - | 2 | 3 |
| **CO4** | 2 | 1 | 1 | 2 |
| **CO5** | 2 | - | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OFTHECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Introduction** | **6** |
| **2.** | **Principles of Plumbing & Drainage System** | **6** |
| **3.** | **Layout System** | **8** |
| **4.** | **Internal Plumbing & Drainage System** | **8** |
| **5.** | **External Plumbing & Drainage System** | **8** |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction** |

| | |
|---|---|
| | • Introduction of unit<br>• Requirements of water supply to various buildings<br>• Sources of water, Water purification and conservation<br>• Methods of conveyance of water, and water lines product materials.<br>• Conclusion and summary of unit. |
| **2.** | **Principles of Plumbing & Drainage System** |
| | • Introduction of unit<br>• Introduction to Plumbing and drainage and plumbing sanitary systems<br>• General principles of drainage, and drainage lines.<br>• Conclusion and summary of unit. |
| **3** | **Layout System** |
| | • Introduction of unit<br>• Basic plumbing requirements & calculations<br>• Conclusion and summary of unit. |
| **4** | **Internal Plumbing & Drainage System** |
| | • Introduction of unit<br>• Interior plumbing layouts - Fixtures and hardware<br>• Conclusion and summary of unit. |
| **5** | **External Plumbing & Drainage System** |
| | • Introduction of unit<br>• Connection to out-door drainage system<br>• Conclusion and summary of unit. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Basic plumbing with illustrations | Massey, H. | 1st ed. Carlsbad 1994 | CA: Craftsman Book Co. |
| 2. | Plumbing design and installation | Ripka, L. | third edition 2006 | American Technical Publishers. |

| | | | | |
|---|---|---|---|---|
| 3. | Sustainable design for interior environments | Winchip, S | 1st ed. 2007 | New York: Fairchild. |

## F. EVALUATION

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

| BIDCID4204 | COMPUTER APPLICATION - IV | 2 Credit [LTP: 1-0-2] |
|---|---|---|

## A. OBJECTIVE

Exposure to CAD will help students to produce their operation and critical parameters. Presentations for large gatherings, corporate clients-using CAD drawings, pictures, 3D images, text etc.

The objective of the course is:

- To develop advanced 2D/3D design exploration, drafting and visualization skills using AutoCAD/Sketch up and develop advanced modelling and presentation skills for interior design
- To initiate, scope, execute, and validate self-directed/ client projects using AutoCAD/Sketchup.
- To introduce the fundamental concepts of computer systems; hardware and software and to develop basic skills in programming, Application of Information Technology tools and technical in Architecture.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. To transform 2D shapes to 3D form seamlessly by learning 3D tools in AutoCAD
- CO2. To create 3D forms in AutoCAD and combine them to form complete built structures
- CO3. To learn different software catering to 3D design and development
- CO4. To become proficient in Sketch up by learning commands and applying tips and tricks applicable
- CO5. To be able to create a complete 3D building model in sketch up and attach it to an actual site Develop and synthesize an effective, aesthetically pleasing, appropriate, innovative, persuasive 3D

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO3** | 3 | - | 2 | – | – | – | – | – | – | – | 3 | - |
| **CO4** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO5** | 2 | 3 | 2 | – | – | – | – | – | – | – | 2 | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 1 | 1 | 1 | 1 |
| **CO2** | 1 | - | - | 3 |

| | | | | |
|---|---|---|---|---|
| **CO3** | - | 2 | 3 | 2 |
| **CO4** | 1 | 1 | 1 | 3 |
| **CO5** | - | 1 | 2 | - |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **AutoCAD** | **8** |
| **2.** | **Introduction to Sketch up** | **10** |
| **3.** | **Sketch up Modelling** | **10** |
| **4.** | **Design Interpretation** | **10** |
| **5.** | **Sketch up Advanced** | **10** |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Auto CAD** |
| | • Introduction of unit<br>• Review– Drawing plan, section, elevation, making presentation drawing, setting format, checking scale, composing sheet in layout<br>• Conclusion and summary of unit. |
| **2.** | **Introduction to Sketch up** |
| | • Introduction of unit<br>• Importing drawing from CAD, selecting scale and units, creating base for modelling, using<br>• Tools for basic modelling i.e. creating 3D box. Use of commands like assembly, group etc. for ease of modelling.<br>• Creating base file. |
| **3.** | **Sketch up Modelling** |
| | • Using tools to extract building elements like doors, windows, roof, etc. and updating the 3D model. Creating site objects, boundary walls, urban elements, landscape furniture, etc.<br>• Developing complete building with elements |
| **4.** | **Design Interpretation** |

| | |
|---|---|
| | • Introduction of unit<br>• Development of natural terrain, importing terrain from Google earth and generating real time contours.<br>• Conclusion and summary of unit. |
| **5.** | **Sketch up Advanced** |
| | • Placing objects from creating models and interiors and modifying properties of elements.<br>• Development of a building & its interiors. |

## E.RECOMMENDED STUDYMATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Online Tutorials – Sketchup | Shetchup Website | Latest | Google |
| 2. | Architectural Design with SketchUp: 3D Modeling,<br>Extensions, BIM, Rendering, Making, and Scripting | Alexander C Shreyer | Latest | John Wiley and Sons |
| 3. | The SketchUp Workflow for Architecture: Modeling<br>Buildings, Visualizing Design, and Creating Construction Documents with SketchUp Pro and LayOut | Michael Brightman | Latest | John Wiley and Sons |
| 4. | Google SketchUp for Site Design: A Guide to Modeling<br>Site Plans, Terrain and Architecture | Daniel Tal | Latest | John Wiley and Sons |

## F. EVALUATION

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

| BIDCID4205 | BUILDING CONSTRUCTION – II | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The course will provide the students with the knowledge and the skills to understand construction and construction techniques. It introduces the students to a wide range of materials, components and systems including wood, steel, etc. the students research and understand these through market surveys, site visits and other sources. The module also defines the installation of doors, windows, walls, surface treatments and finishes. The students produce a set of working drawings related to the subjects.

The objective of the course is:

- To understand materials and systems, their properties and applications, and their intrinsic relationship to structural systems and environmental performance.
- To develop a fundamental understanding of relationship of materiality to construction systems and techniques.

## B. COURSE OUTCOME

After studying this course you should be able to:

- Understand properties of basic building materials, construction and their application in interior Spaces
- Develop knowledge of how to develop strategies for Interior design taking into account structural, material and functional contexts
- Develop an understanding of importance & use of eco-friendly materials in interiors.
- Develop critical appreciation and understanding of R.C.C. foundation & staircase.
- Demonstrate knowledge of structural and functional principles for interior architecture and design.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | 2 | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO3** | 3 | 2 | 1 | – | – | – | – | – | – | – | 3 | 2 |
| **CO4** | 3 | - | 3 | – | – | – | – | – | – | – | 3 | - |
| **CO5** | 1 | 2 | 2 | – | – | – | – | – | – | – | 1 | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 2 |
| **CO2** | 2 | 1 | 1 | 1 |
| **CO3** | 2 | 2 | 1 | 2 |
| **CO4** | 2 | 1 | 1 | 2 |
| **CO5** | 2 | 1 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Wooden walls, flooring and Roofing** | **8** |
| **2.** | **Wooden openings and Shutters** | **8** |
| **3.** | **Bamboo** | **8** |
| **4.** | **R.C.C. Foundation Steel Foundation &Staircase** | **6** |
| **5.** | **False Ceiling & Partitions** | **6** |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Wooden walls, flooring and Roofing** |

| | |
|---|---|
| | • Introduction of unit<br>• Construction details of wood stud framing, wood post<br>• Types of wooden walls – structural and non-structural & beam framing and connections. Construction details of flooring of wood plank<br>• Types of wooden flooring systems & beam framing and wood decking Construction details of roofing of wood plank Types of wooden roofing - flat roof and pitched roofs.<br>• Conclusion and summary of unit. |
| **2.** | **Wooden Openings and Shutters** |
| | • Introduction of unit<br>• Door, window and ventilators – fixing of wooden frames, holdfast, horns, hinges, handles, lock etc.<br>• Conclusion and summary of unit. |
| **3.** | **Bamboo** |
| | • Introduction of unit<br>• Construction details of Bamboo frame and joinery.<br>• Introduction to Bamboo construction systems.<br>• Conclusion and summary of unit. |
| **4.** | **R.C.C. Foundation Steel Foundation& Staircase** |
| | • Introduction of unit<br>• Construction of R.C.C. and steel foundation and footings. DPC, Types of Staircase, Construction details of staircase.<br>• Conclusion and summary of unit. |
| **5.** | **False Ceiling & Partitions** |
| | • Introduction of unit<br>• Typical details, various types of false ceiling, application of various types of materials in false ceiling.<br>• Types of partitions, typical details, fixtures of various narduoones in partitions and its specifications.<br>• Conclusion and summary of unit. |

## E.RECOMMENDED STUDYMATERIAL

| Sr.No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Building construction | B.C.Punmia | $10^{th}$ | Laxmi publication |
| 2. | Building construction | S.C.Rangwala | $29^{th}$ | Charatar publication |
| 3. | A Text Book of Building Construction | S.P.Arora, S.P.Bindra | $5^{th}$ | Dhanpat Rai publication |

| | | | | |
|---|---|---|---|---|
| 4. | Building construction illustrated | FRANCIS D. K. CHING | 3rd | |
| 5. | Building Constructions (1to 4 vol.) | Mckay, W.B. | | |

## F. EVALUATON

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

| BIDEID4101.1 | LIGHTING AND COLOR IN INTERIORS | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

- To acquire lighting design skills that provide a quality luminous environment using electric lighting, and its integration with day lighting, as a material that provides form and sensory qualities to spaces.
- To familiarize with drawing and sketching techniques and develops the appropriate skills for visualization and representation to facilitate effective visual communication.

## B. COURSE OUTCOME

After studying this course you should be able to:

- Understand the importance of lighting and color in interiors.
- Gain knowledge about different types of design systems and smart lighting systems in the trend.
- Demonstrate a significant expansion of vocabulary.
- Write reports and summarize lengthy passages.
- Gain sound knowledge of Communication Skills and will be able to develop and display confidence in public speaking and Group Discussions.
- Apply the learning on the design project & learn to render design sheets.

## C.OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | **Introduction to Lighting & Color in Interiors** | 7 |
| 2. | **Design Systems** | 7 |
| 3. | **Lighting Systems in Interiors** | 7 |
| 4. | **Color Schemes in Interiors** | 7 |
| 5. | **Design Scheme** | 8 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | 1. **Introduction to Lighting and Color in Interiors** |
| | • Introduction ofUnit<br>• Overview of layers of lighting, lighting fixtures and fittings |
| 2. | **Design Systems:** |
| | • Analysis of various Lighting design and layouts in various commercial spaces, such as Museum, gallery, Retail showroom, Offices, etc. Understanding the implications of electric lighting on place making, spatial ordering, health, and human activities in indoor spaces.<br>• Exploration of current tools, trends, materials, technology and energy efficient designs in lighting systems. |
| 3. | **Lighting Systems in Interiors** |
| | • Introduction of unit<br>• Exploration of current tools, trends, materials, technology and energy efficient designs in lighting systems.<br>• Conclusion and summary of unit. |
| 4. | **Lighting & Color Schemes in Interiors** |

| | |
|---|---|
| | • Introduction of unit<br>• General aims, lighting needs, calculation of lighting levels, intensity levels, energy and installation costs and other factors, selection of fixtures, location and placing of fixtures. Principle of schematic lighting design and energy codes.<br>• Understand different color schemes and produce design sketches with the help of color rendering: Acrylic colors or water colors implementing different color schemes..<br>• Conclusion and summary of unit. |
| **5.** | **Design Scheme** |
| | • Introduction of unit<br>• Project oriented for lighting design based on research investigation and conceptual approach with detailing and prototype<br>• Show the light and color effect on design project.<br>• Do Color rendering of the ongoing design project.<br>• Conclusion and summary of unit. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No | Reference Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Lighting: In Architecture and Interior Design | Wanda jankowski | 1995 | pbcintl |
| 2. | Concepts and practice of Architectural Day lighting | Moore Fuller, | Latest | Van Nostrand Reinhold co. |
| 3. | National Lighting Code | | 2011 | Govt of India |
| 4. | Concepts in Architectural lighting | David Egan. M. | Latest | Mcgraw Hill Book co. |
| 5. | Interior Design Illustrared | Francis.D. Ching& Corky Bingelli | Latest | Wiley publishers. |

## F. EVALUATON

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

| BIDEID4101.2 | ENVIRONMENTAL CONTROL IN INTERIORS | 2 Credits [LTP: 0-1-2] |
|---|---|---|

## A. OBJECTIVE

Students will be able:

- To understand the scope of environmental studies and explain the concept of ecology, ecosystem and biodiversity.
- To implement innovative ideas of controlling different categories of Environmental Pollution.
- To explain different environmental issues together with various Environmental Acts, regulations and International Agreements.
- To summarize social issues related to population, resettlement and rehabilitation of project affected persons and demonstrate disaster management with special reference to floods, earthquakes, cyclones, landslides.
- To determine the local environmental assets with simple ecosystems and identify local flora and fauna

## B. COURSE OUTCOME

After studying this course you should be able to:

- To develop the understanding of climate & factors affecting the climate, their typology and micro and macro climate with elements of climate
- To understand the effect of climate on human, comparative analysis of human and building, heat balance and thermal comfort through means like thermal indices, solar chart and Psychometric chart.
- To gain knowledge of thermal activities like heat flow, heat transfer, heat storage and time lag of various building materials and elements
- To apply learned knowledge of lighting analysis, day lighting and its factors and how it effects the indoor environment of a building
- To carry out site analysis with respect to climatology and its application in site planning and design evolution in Practical work

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | **Introduction to Interior Environment** | 4 |
| 2. | **Vernacular Building Traditions** | 8 |
| 3. | **Energy saving device & systems** | 8 |
| 4. | **Interior Landscaping** | 8 |
| 5. | **Design Exercise** | 8 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction** |
| | • Introduction to Interior Environment.<br>• Role of Environment in Interior Design.<br>• Evolution of Environmental studies in design,<br>• Environmental Design issues.<br>• Concept of sustainability and sustainable development.<br>• Ecosystem: Structure and function of ecosystem<br>• Energy flow in an ecosystem: food chains, food webs and ecological succession.<br>• Biodiversity and its conservation: genetic, species and ecosystem diversity, Bio geographical classifications, hot-spots of biodiversity, threats to biodiversity, Conservation of biodiversity<br>• Case studies of the innovative ways and means of acquiring environmental control in interiors. |
| **2.** | **Environmental Impact of Vernacular Building Traditions** |
| | • Vernacular building tradition-Meaning & theories.<br>• Determinants of vernacular building tradition: Role of social, cultural, political, economic symbolic, climatic, technological contest in creation of form.<br>• Impact of Vernacular Building traditions on environment.<br>• Illustrated case studies of vernacular settlements/building typology<br>• Historical case Studies, Mud/ Bamboo Architecture.<br>• Principles of Organic Architecture, earth sheltered buildings, water bodies, Energy Efficient Building Design, green architecture,<br>• Bionic Architecture along with case studies of various contemporary designs done with principles of sustainability<br>• Group Assignment: Case study of Passive & Active Design. |
| **3.** | **Energy saving device & systems** |
| | • Energy saving lighting systems, smart windows, active solar& building integrated photovoltaic system, energy efficient HVAC<br>• (Heating, Ventilation and Air-Conditioning)systems, energy storage systems |
| **4.** | **Passive & Active Environmental Design** |

| | |
|---|---|
| | • Impacts on ecology due to build environment, Control by design,<br>• historical case Studies, Mud/ Bamboo Architecture,<br>• Principles of Organic Architecture, landscaping; earth sheltered buildings, water bodies, Energy Efficient Building Design, green architecture,<br>• Bionic Architecture along with case studies of various contemporary designs done with principles of sustainability<br>• Group Assignment: Case study of Passive & Active Design.<br>• Interior Landscaping and its impact on interior environment.<br>• Enhance a space using Interior Landscaping.<br>• Elements of Interior Landscape |
| **5.** | **Design Exercise** |
| | • Design a mural/product for your current design project using eco friendly (reuse and recycle) materials learnt during the course and create your own innovative solutions for the same. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No | Reference Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Environmental Studies | ErachBarucha | Latest | UGC |
| 2. | Environmental Studies | Benny Joseph | Latest | Tata McgrawHill |
| 3. | Environmental Studies | R. Rajagopalan | Latest | Oxford University Press |
| 4. | Principles of Environmental Science and Engineering | P. Venugoplan Rao | Latest | Prentice Hall of India. |
| 5. | Environmental Science and Engineering | P. Meenakshi | Latest | Prentice Hall India. |
| **Important Web Links** | | | | |
| 1. | http://www.energy.gov | | | |
| 2. | https://nptel.ac.in/courses/122102006/ | | | |

## F. EVALUATION

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

| BIDEID4101 | INTERIOR DESIGN PHOTOGRAPHY | 1 Credits [LTP: 0-0-2] |
|---|---|---|

## A. OBJECTIVE

This course will give participants the opportunity to engage in a similar quest and will discussphotography as a medium to interpret aesthetic intent, express**.**

## B. COURSE OUTCOME

After studying this course you should be able to:

- Implement the contributions of photography to enhancing the aesthetics of architecture and to develop proficiency in this art using modern photographic techniques.
- Correlate the equipment, processes, and procedures necessary for the photography of building exteriors and interiors, dusk/night and night architectural landscapes, and construction progress
- Implement concepts of architectural lighting, heightened sensitivity to light, ability to use High Dynamic Range (HDR), multiple exposures to create dramatic architecture/interior images without additional professional lighting, to control of Parallax
- Learn and Implement the Advance photography for Interior Design.
- Collaborate all knowledge of photography

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction** | 9 |
| **2** | **Introduction to Lightroom** | 9 |
| **3** | **Advanced Lightroom** | 6 |
| **4** | **Advance Photography** | 6 |
| **5** | **Final Project** | 6 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | • Introduction to the Photography<br>• Lightning Concept -Role of lights in Interior Design photography,<br>• Basic Digital Camera Functions Settings, file types and sizes – Resolution<br>• Creative Shooting/Interior Lighting /Processing Raw Files |
| **2.** | **Introduction to Lightroom** |

| | |
|---|---|
| | • Light room Introduction: Computer preferences and basic set up. Calibration, Free transform<br>• Visual Acoustics<br>• Digital Printing, Light room Continued/Free Transform Continued |
| | • Creative photography/ photo renderings, for special effects using software.<br>• Play of light and shadows to achieve dramatic pictures. |
| **3.** | **Advanced Lightroom** |
| | • Advanced Lightroom/Develop<br>• Advanced Develop Module, Present HDR – Digital Tool for Architecture and Interior Design<br>• Shutter speeds- slow, normal and high and their various applications.<br>• Apertures- use of various apertures to suit different lighting conditions and to enhance depth of fields.<br>• Selection of ISO rating to match various lighting conditions. |
| **4.** | **Advance Photography** |
| | • Photo Exhibition<br>• Lightroom Mobile<br>• Optimizing selection of shutter speed, aperture and ISO.<br>• Twilight and night photography.<br>• Architectural photography as a profession, law on photography |
| **5.** | **Final Project** |
| | • Students have to prepare a final Project related to their Individual research / thesis work or as instructed by the guide and prepare a digital interior photography portfolio. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Architectural Photography: Composition, Capture, and Digital Image Processing | Schulz, Adrian | 2012 | Rocky Nook |
| 2. | Photographing Buildings Inside and Out | McGrath, Norman | 1993 | Watson-Guptill Publications |

## F. EVALUATON

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

# SYLLABUS

# V Semester

| BIDCID5101 | INTERIOR ESTIMATION & COSTING | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To enable the student to write specifications for various items of civil works & Interior work with a view of controlling quality of work executed at site.
- To provide the student sufficient knowledge of estimation in order that he can advise prospective clients on project viability and also monitor/ control project cost.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Determining the fundamentals of cost and estimation in interior design project.
- CO2. Compose the bill and cost estimation for architectural drawings.
- CO3. Evaluating and estimating projects and deriving the expenditure.
- CO4. Create approximate estimate, detailed estimate for small scale building projects and low cost housing.
- CO5. Assessing art of building construction through specification writing.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | - | 3 | 3 | – | – | – | – | – | – | – | - | 3 |
| **CO3** | - | 3 | - | – | – | – | – | – | – | – | - | 3 |
| **CO4** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO5** | - | - | 3 | – | – | – | – | – | – | – | - | - |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | - | 2 | 2 |
| **CO2** | - | 2 | 2 | 2 |
| **CO3** | 1 | 1 | 1 | 1 |
| **CO4** | 1 | 3 | - | 1 |
| **CO5** | 1 | 1 | 3 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction** | 4 |
| **2** | **Rate analysis** | 4 |
| **3** | **Introduction to Specification** | 4 |
| **4** | **Estimate Formats** | 6 |
| **5** | **Estimation and costing** | 6 |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | Estimation – definition, purpose, types of estimate, and procedure for Estimating the cost of work in order to implement an interior design project or to make products related to interior design like furniture, artifacts etc. |
| **2.** | **Rate analysis** |
| | Rate Analysis – definition, method of preparation, Bill of quantity , Tender , Bid for Interior design projects, contract , steps to prepare interior design contract, Purchase order , work order. |
| **3.** | **Introduction to Specification** |
| | Specification – Definition, purpose, procedure for writing specification for the purpose of calling tenders, types of specification.<br>Specification for different item related to interior design project – woodwork for furniture window frames & pelmets, partitions etc., also of materials like steel aluminum glass of various kind. Wall paneling & false ceiling of materials like aluminum, steel, wood, electrical, plumbing, air conditioning & firefighting equipment's. |
| **4.** | **Estimate Formats** |
| | Detailed Estimate – data required factors to be considered, methodology of preparation, Abstract of Estimate, contingencies, labor charges, different methods of estimate for interior design works, methods of measurement of works. |
| **5.** | **Estimation and costing** |
| | Create Detail Estimation of Interior design project ongoing in Interior design studio of the same semester. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Estimation, Costing, Specification and Valuation in Civil Engineering | M. Chakraborti | | |
| **2.** | Estimating and Costing | Dutta | 1983 | S. Dutta and Co., Lucknow |

## F. EVALUATON

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

| BIDCID5102 | MATERIAL STUDY - III | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

Subject provides knowledge of the different Building materials & Finishes used in interiors and Exteriors.

The objective of the course is:

- To understand complex building material in the context of various construction methods.
- To focus on various building materials based on the performance, standards and codes, wherein application of each material would be discussed in detail, both in the context of historical and contemporary methodology.
- To study materials and systems, application of building materials such as Steel, Iron & other Metals, Doors & Windows materials & their Fittings, Paint, Distemper & Varnishes, Recycled & Green Building Materials, etc., their properties and applications, and their intrinsic relationship to structural systems and environmental performance.
- To study and compare the material and construction techniques.
- To focus on latest trends in practice and usage of new technology/materials.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Develop understanding of material eq. Steel, Iron and other metals properties and construction techniques of industrial buildings.
- CO2. Gain knowledge on different interior finishes, progressively and to enable them to represent the different building components through relevant drawings
- CO3. Perform the different test for quality assurance of Building Materials.
- CO4. Select the appropriate construction materials as per construction activities and specifications.
- CO5. Correlate Green building material with interior design materials.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO3** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO4** | - | 3 | - | – | – | – | – | – | – | – | - | 3 |
| **CO5** | - | 3 | - | – | – | – | – | – | – | – | - | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 2 |
| **CO2** | 1 | 1 | 1 | 2 |
| **CO3** | 2 | - | 1 | 2 |
| **CO4** | - | - | 2 | 2 |
| **CO5** | 3 | - | 2 | - |

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Steel** | **4** |
| **2** | **Iron and other Metals** | **4** |
| **3** | **Doors & Windows materials & their Fittings** | **5** |
| **4** | **Paints, Distemper & Varnishes** | **6** |
| **5** | **Recycled and Green Building materials** | **5** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Steel** |
| | Composition, Properties, anticorrosive measures, mechanical and heat treatment of steel - Market forms of steel: Steel for Reinforcement - Hot rolled bars, CTD Bars, TMT bars , Welded wire fabrics; Steel for Pre stressed concrete; Structural steel; Stainless steel, steel alloys, current developments. |
| **2.** | **Iron and other Metals** |
| | Iron-Brief study on manufacture, composition, properties and uses of cast iron, wrought iron, pig iron.<br>Other metals: Aluminum and its alloys, copper and its alloys. |
| **3.** | **Doors & Windows materials & their Fittings** |
| | • Standard sections – Channel, box, extruded etc. – Connections – |

| | |
|---|---|
| | Specifications. Door and window hinges like butt hinges, pin hinges, parliament hinges, garnet hinges, counter flap hinges, strap hinges, piano hinges, auto-closing hinges<br>• Door and window bolts like sliding door bolt, tower bolt, flush bolt<br>• Door handles- door locks-other fastenings to door and windows like hook and eyes, window stays, door stoppers, door closers, caster wheels, floor springs, pivots, magnetic catchers for wooden cupboards etc.<br>• Drawings – Steel windows and Doors, Aluminum doors, windows and hand rails, Door and window fittings. |
| **4.** | **Paints, Distemper & Varnishes** |
| | • PAINTS, DISTEMPERS & VARNISHES – types –composition – properties – application, Uses and BIS specifications. |
| **5.** | **Recycled and Green Building materials** |
| | • Introduction of renewable materials, need for recycle materials.<br>• The logic behind recycling – recycling of steel, wood, glass etc.– estimation of the quality of recycled timber – criteria for recycling of steel, glass etc.<br>• Green Building concept and materials |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Green Building Materials | SPIEGE | 3rd | |
| 2. | Building Materials | P.C. Uarghese | 7th | Ashoke K. Ghosh |
| 3. | Building Materials | S.K. Duggal | 3rd | New Age Internatio nal |
| 4. | Engineering material | S.C. Rangwala | Latest | Charotar Publishing House |

## F. EVALUATON

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

| BIDCID5103 | BASICS OF VAASTU | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

This course is full of practical sessions to enrich students with hands on experience of how to analyze floor plans and apply different steps Vaastu method for resolving any concern.

The objective of the course is:

- To understand power of all Vaastu Zones and how to keep these balanced to create more happiness, love & money.
- To help students learn different steps of Vaastu methodology for step-by-step diagnosis of any problem and then applying Vaastu techniques for balancing.
- To understand application of popular Vaastu remedies as well as using household objects as remedies for achieving desired results.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Create understanding of scientific background, origin of Vaastu.
- CO2. Direct directions for different areas for residential and commercial projects.
- CO3. Program Vaastu tips for the projects, progressively and to enable them to represent the different building areas through relevant drawings.
- CO4. To develop different steps of Vaastu methodology for step-by-step diagnosis of any problem and then applying Vaastu techniques for balancing.
- CO5. Create application of popular Vaastu remedies as well as using household objects as remedies for achieving desired results.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO2 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO3 | 3 | 3 | - | – | – | – | – | – | – | – | 3 | 3 |
| CO4 | - | 2 | - | – | – | – | – | – | – | – | - | 2 |
| CO5 | 3 | 3 | - | – | – | – | – | – | – | – | 3 | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 1 | 1 | 1 |
| CO2 | 1 | - | 2 | 1 |
| CO3 | - | 1 | - | 3 |
| CO4 | 2 | 1 | 1 | 1 |
| CO5 | 1 | 2 | - | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction** | **4** |
| **2** | **Interior and Exterior** | **5** |
| **3** | **Orientation of Home** | **5** |
| **4** | **Commercial Vaastu** | **5** |
| **5** | **Remedial Vaastu and Pyramids** | **5** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | • Overview of the history and scientific background of Vaastu<br>• Understanding Life force Energy<br>• Importance of Five Elements<br>• Importance of Cardinal Directions<br>• Principles of Vastushastra<br>• Selection of Land<br>• Veedhi Shoola. |
| **2.** | **Space Planning** |
| | • Space planning as per Vastu Shastra<br>• Building Design - Floor level, Height factors, Verandas, Balconies, Porch, Basements, Sumps & Borings, Boundary Walls, Parking, Security Guard Room, Overhead Tanks, Septic Tanks, Water flow, Mezzanine floors, Plants and Greenery |
| **3.** | **Vastu for Residence** |
| | • Importance of Vastu in residence design<br>• Orientation and planning of Bed Room , Living Room, Kitchen, Dining Room, Bathroom, Drawing room, Study Room, Puja Room, Library, Store room, Doors, Main Entrance, Staircase, Servants room, Guest Room as per Vastushastra<br>• Interior decoration as per Vastushastra |
| **4.** | **Commercial Vaastu** |
| | • External and Internal Planning for Offices, Shops, Restaurants, Showrooms, Schools, Hospitals and Other Commercial establishments according to Vastushastra. |
| **5.** | **Remedial Vaastu and Pyramids** |
| | • Identifying the Vaastu Defects<br>• Rectification of Vaastu Defects in Existing Building |

| | |
|---|---|
| | • Color therapy<br>• Discussion on different building Plans<br>• Introduction to Power of Pyramids<br>• Application of Pyramids in Vaastu<br>• Remedies with Pyramids |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Golden Rules of Vaastu Shastra - Remedies And Solutions | Suman Pandit | | |

## F. EVALUATON

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

| BIDCID5201 | INTERIOR DESIGN STUDIO – V | 7 Credits [LTP: 1-0-6] |
|---|---|---|

## A. OBJECTIVE

Students must be able to present a project graphically in a medium and a format that enhance the solution to a design problem and communicate clearly to the audience. In this course, students will learn to use a variety of tools and the vocabulary to present their designs in the most effective way.

Site visits will be conducted to understand the nature of project. Group discussions among students is encouraged. This course introduces HOSPITALITY INTERIORS.

The objective of the course is:

- To introduce to students, the design of a building with complexities related to multi-functional spaces, services, structures and large scale site planning;
- To accommodate more than one building Interiors;
- To help students evolve the integrated understanding of the complex relationship between, function and space of multifunctional area;
- To initiate the concepts and implementation of campus planning, services in MEP, HVAC and structures, space planning, landscaping, movement and segregation for Large Scale Buildings
- For the entire semester, you will take up a single design project – HOSPITALITY INTERIORS WHICH MAY INCLUDE- CAFÉ, RESTAURANT, BAR, GYM, SPA, HOTEL LOBBY AND RECEPTION AREAS ETC.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. To understand the design as a 2-dimensional plan as well as a 3-dimensional form and its relevance with the surrounding context
- CO2. To learn the process of researching and analyzing the design process involved in the existing design forms in various parts of the country and even abroad, the methods adopted by famous designers and experts and its results, and drawing inferences from the studies conducted in order to open the mind for newer innovations and alternatives
- CO3. To practice freedom to think _out of the box ‘but design sustainably and also, to improve architectural vocabulary for presenting the design on any possible competitive platforms
- CO4. To apply the various theories and techniques learnt in previous design projects and also develop the final design from the conceptual theme.
- CO5. Observe, research, document, and apply ergonomic and anthropometric aspects of interior design with respect to design problem.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | 2 | - | – | – | – | – | – | – | - | - |
| **CO2** | - | - | 2 | - | – | – | – | – | – | – | - | - |
| **CO3** | 2 | 2 | 3 | - | – | – | – | – | – | – | 2 | 2 |
| **CO4** | 3 | 1 | 1 | - | – | – | – | – | – | – | 3 | 1 |
| **CO5** | 1 | 2 | 3 | - | – | – | – | – | – | – | 1 | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | 1 | 1 | 2 |
| **CO2** | 2 | - | 2 | 2 |
| **CO3** | 2 | 2 | 2 | 1 |
| **CO4** | 2 | 2 | 2 | - |
| **CO5** | 1 | 2 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction to design Project** | **6** |
| **2** | **Case Studies** | **9** |
| **3** | **Design Concept** | **6** |
| **4** | **Technical drawings** | **6** |
| **5** | **Layout Plans** | **9** |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction to design Project** |
| | • To introduce to students, the design of a building with complexities related to hospitality, services, structures and site planning.<br>• Conclusion and summary of unit. |

| | |
|---|---|
| **2.** | **Case Studies** |
| | • Introduction of unit.<br>• Understanding the role & process of a case study.<br>• Choose & select relevant case examples related to your project.<br>• Understanding the principles and standards of different areas of a hospitality space and also the anthropometry and ergonomics inside a given space.<br>• Study and analyze an existing hotel w.r.t. the design project. |
| **3.** | **Design Concept** |
| | • Developing concepts for the design project.<br>• To help students evolve their design by understanding relationship between forms, function and space.<br>• Explain your design idea with the help of sketches. |
| **4.** | **Technical drawings** |
| | • Plan, Sectional Elevation**,** furniture layout.<br>• Detailed interior drawings.<br>• Make appropriate furniture details. |
| **5.** | **Layout Plans** |
| | • Electrical layout.<br>• Lighting layout.<br>• Plumbing layout<br>• Flooring pattern<br>• Ceiling plan<br>• Wall finishes |

## MODEL EXERCISE/ ASSIGNMENTS/ PROJECTS:

Project: HOSPITALITY INTERIORS/ HOTELS /

Students will strictly work on the interior part, of the given plan. They can get those plans from SPA Department too.

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Campus design in India Kanvinde& Miller | Campus design in India Kanvinde& Miller | | |
| 2. | Time Saver Standards for Interior Design and Space Planning | Martin Zelnik and Julius Panero | Latest | |

| BIDCID5202 | WORKING DRAWING-I | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To introduce the concepts and fundamentals of Working Drawing.
- To familiarize the students with the language of architecture & buildings as two dimensional and three dimensional representations

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | - | - | - | - | – | – | – | – | – | – | – |
| **CO2** | - | - | 3 | - | 2 | – | – | – | – | – | – | – |
| **CO3** | - | - | 2 | - | 3 | – | – | – | – | – | – | – |
| **CO4** | - | - | 3 | - | 3 | – | – | – | – | – | – | – |
| **CO5** | 3 | - | - | - | 3 | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | - | 2 | 2 |
| **CO2** | - | 3 | - | 2 |
| **CO3** | 1 | 1 | 1 | - |
| **CO4** | 1 | - | 1 | 1 |
| **CO5** | - | 1 | 1 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## B. COURSE OUTCOME

- To prepare basic working drawings for a given building Design
- To prepare site layout with necessary details based on basic drawings
- To prepare detailed working drawing based on basic drawings
- To incorporate the knowledge of construction, finishes and services for designing details and Preparing working drawings
- To document the entire set of working drawings with the aim of presenting the same for securing placement for practical training.

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | **Working plans** | **8** |

| | | |
|---|---|---|
| **2.** | **Interior working details** | **8** |
| **3.** | **Working elevation(s) and sectional details** | **12** |
| **4.** | **Submission drawings & details** | **8** |
| **5.** | **Other drawings & details in interiors** | **12** |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Working plans** |
| | • Introduction to Poject-1- previous semester apartment design.<br>• Preparation of working drawings of a residence.<br>• Drafting of working plans – floor, terrace & location; sections and elevations of 3BHK |
| **2.** | **Interior working details** |
| | • Introduction to interior working details<br>• Preparation of furniture details, plan, elevation & sections.<br>• Preparation of door and window schedule.<br>• Preparation of kitchen and toilet details. |
| **3.** | **Working elevation(s) and sectional details** |
| | • Demonstration of working elevations and sections.<br>• Drafting/conversion of sections & elevations to working drawings<br>• Drafting of detailed drawing – Plans, Elevations and Sections & detailing of Staircase. |
| **4.** | **Submission drawings & details** |
| | • Lecture on formatting of submission drawings Location Plans, Floor Plans, Elevations, Sections<br>• Lecture on detailed drawings<br>• Elevations, site plan, area calculations, & opening schedules Compiling/formatting of submission drawing |
| **5.** | **Other drawings & details in interiors** |
| | • Drafting of detailed drawing – Plans, Elevations, Sections and Details of Boundary wall<br>• Drafting of detailed drawing – Plans, Elevations, Sections and Details of Washroom(s)<br>• Drafting of detailed drawing – Plans, Elevations, Sections and Details of Kitchen |
| | PROJECT 2 –Design Project of Current Semester |

| | |
|---|---|
| | • Preparation of current semester Design drawings according to exercise done under Project 1<br>• Column and grid placement in the final plans<br>• Drafting/conversion of floor plans to working plans |
| | • Drafting/conversion of sections & elevations to working drawings |
| | • Compiling/formatting of submission drawing including location plan, floor plans, sections, elevations, site plan, area calculations, & opening schedules |

## E. RECOMMENDED STUDY MATERIAL

| S.N. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Working Drawing Handbook | Keith Syles | 1998 | Architectural Press Oxford |
| 2. | Arch. Drawing and Light Construction | Edward J. Muller, James G. Gausett | 1999 | Grav – Prentice Hall, New Jersey |
| 3. | Unified Building Regulation, Rajasthan | | 2017 | Jaipur Development Authority |
| 4. | Working Drawing Manual (P/L Custom Scoring Survey) | Fred A. Stitt | 1998 | McGraw-Hill Education |
| 5. | The Professional Practice of Architectural Working Drawings | OsamuA.Wakita, Richard M. Linde & Nagy R. Bakhoum | 4th edition (2011) | John Wiley & Sons |
| 6. | Architectural Working Drawings | Ralph W. Liebing | 3rd edition (1990) | John Wiley & Sons |

## F. EVALUATON

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

| BIDCID5203 | BUILDING SERVICES – III | 2 Credits [LTP: 1-0-2] |
|---|---|---|

## A. OBJECTIVE

The course provides an understanding of the Building services for Spaces in Building. The students learn about the basic concepts of the various elements that help in the functioning of the proper services of a complex interior environment such as a residential/commercial/Commercial & Retail/institutional space.

The objective of the course is:

- To understand the importance of human comforts in interior space and built environments
- To understand Built forms in context of environmental climatology and artificial environments for interiors
- To understand the importance of Services and linkages in the context of Interior Design
- To develop an appreciation of Electrical, Plumbing and HVAC as the spine of interior architecture and design solutions

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. To understand the importance of acoustics in architecture.
- CO2. To learn and adopt various terminologies like RT, echo, noise rating, etc. and their values for different materials along with their application
- CO3. To understand the concept of noise and how it affects any interior/exterior space along with understanding the means and methods of reducing it to the maximum possible extant
- CO4. To gain knowledge of various acoustical materials and their properties
- C05. To apply the knowledge gained in practical examples for achieving maximum efficiency of acoustics.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO2** | - | 3 | 2 | – | – | – | – | – | – | – | - | 3 |
| **CO3** | - | - | 3 | – | – | – | – | – | – | – | - | - |
| **CO4** | 3 | - | 2 | – | – | – | – | – | – | – | 3 | - |
| **CO5** | - | - | 3 | – | – | – | – | – | – | – | - | - |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 1 | 1 | 1 |
| **CO2** | 1 | - | 3 | 2 |
| **CO3** | 1 | 3 | 1 | 1 |
| **CO4** | 1 | 1 | 1 | 3 |
| **CO5** | 1 | 1 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction to Acoustics** | **6** |
| **2** | **Terminologies in Acoustics** | **9** |
| **3** | **Noise** | **6** |
| **4** | **Acoustical Materials** | **6** |
| **5** | **Acoustical design process** | **9** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction to Acoustics** |
| | • Introduction to acoustics<br>• Physics of sound, behavior of sound in an enclosed space.<br>• Criteria for acoustic environment- location of building, geometry and shape,<br>• Identification of Acoustics terminology, components and typology of acoustical treatments. |
| **2.** | **Terminologies in Acoustics** |
| | • Basic definitions<br>• Basic understanding of echo, reverberation time,<br>• sound absorption coefficient,<br>• Noise rating curves. |

| | |
|---|---|
| | • Detailed study of the calculations of reverberation time, frequency, etc. |
| **3.** | **Noise** |
| | • Noise<br>• Noise- physiological and psychological effects, transmission loss, flanking of sound,<br>• Structure borne sound and noise from different mechanical equipments,<br>• Noise control techniques and their applications,<br>• Detailed study of types of noise and noise effect on human and its surroundings. |
| **4.** | **Acoustical Materials** |
| | • Acoustical Materials<br>• selection of acoustic materials, construction details and fixing.<br>• Advanced study of acoustical treatments, material specifications and study with case studies and market surveys. |
| **5.** | **Acoustical design process** |
| | • Acoustical design process<br>• Predictions of acoustical conditions,<br>• Approach to designing enclosure for predetermined acoustical responses, corrective of existing deficient enclosures,<br>• Introduction to sound reinforcing system- amplification and distribution. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | National Building Codes | | 2005 | Bureau of Indian Standards |

## F. EVALUATON

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

| BIDCID5204 | COMPUTER APPLICATIONS – V | 2 Credits [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

Exposure to 3DS MAX will help students to produce their operation and critical parameters. Presentations for large gatherings, corporate clients-using 3DS MAX 3D images, text etc.

The objective of the course is:

- To develop advanced 3D design exploration, drafting and visualization skills using 3DS Max and develop advanced modeling and presentation skills for interior design
- To initiate, scope, execute, and validate self-directed/ client projects using 3DS MAX.
- T o introduce the fundamental concepts of computer systems; hardware and software and to develop basic skills in programming, Application of Information Technology tools and technical in Architecture.

## B. COURSE OUTCOME

After studying this course you should be able to:

- Demonstrate an understanding of the symbiosis of conceptual and technical skills required by a designer, to cope with industry changes, and the impact of new technologies
- Build the role of advance 3D software in the ongoing evolution of the practice of interior design & architecture
- Develop and synthesize an effective, aesthetically pleasing, appropriate, innovative, persuasive 3DS MAX solutions for interiors
- Develop an understanding of advance 3D software as a tool that aids the designer in visualizing, detailing, costing and presenting interior design projects.
- Programming the process of visualizing in depth and detail in advance 3D software's.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO2 | - | - | 3 | – | – | – | – | – | – | – | - | - |
| CO3 | 3 | - | 2 | – | – | – | – | – | – | – | 3 | - |
| CO4 | - | - | 3 | – | – | – | – | – | – | – | - | - |
| CO5 | 2 | 3 | 2 | – | – | – | – | – | – | – | 2 | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 1 | 1 | 1 | 1 |
| **CO2** | 1 | - | - | 3 |
| **CO3** | - | 2 | 3 | 2 |
| **CO4** | 1 | 1 | 1 | 3 |
| **CO5** | - | 1 | 2 | - |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction** | **6** |
| **2** | **Tools** | **6** |
| **3** | **Parameters Modifier** | **9** |
| **4** | **Computerized Designing** | **6** |
| **5** | **Final Drawings** | **9** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | • Uses in various sectors, features in the software interface, four ports and configuration, animation options – time line & time slider – Unit setup |
| **2.** | **Tools** |
| | • Application of tools in main tool bar ,link, unlink, selection tools,<br>• Software interface &operating tools, mirror &snaps<br>• Navigation panel - tab panel, media panel ,grid and snap set up, extended primitives, group menu, P Q R axis, coordinates, family parameters<br>• Modeling hedra, torous nut, chamfer box, chamfer cylinder retc.<br>• Modeling of interior object like sofa, tables, beds, cupboards |
| **3.** | **Parameters Modifier** |

| | |
|---|---|
| | • Bend, taper, twist, shell, slice, wave, noise, etc.<br>• Appling parametric modifiers with shell modifiers, limit effects gizmo center, geometrical 3D object with parameters, door, windows, wall, railing, stairs, foliage and site improvement<br>• Concepts of 2D shapes, line spline difference between editable, spline and default shapes brief visualization on arc, rectangle, polygon, circle, ellipse, helix, text, stares, extrude lathe, loft, boolean<br>• Parameters of line – vertex, segments, spline etc. |
| **4.** | **Computerized Designing** |
| | • Using editable spline, attach & cross section, editing lines by expiring vertex, segments, splines<br>• Modelling concepts of bevel profile<br>Vertex parameters (fillet, chamfer, fuse, weld, connect, insert, etc.)<br>Segment parameters (insert, break, divide, hide, unhide, etc.)<br>Spline parameters (trim, extend, outline etc.)<br>• Creating subtraction & 3D objects from 2D lines & shapes, apply mirror any align attach command on 2D lines changing and converting to 3D editable spline<br>• Copy of segment and line, relation line drawing, importing 2D plans and3D blocks, exporting files to other extension, how to draw plan<br>• Introduction to material textures and maps concepts of texturing and adding material, introduction to material editor, mapping material slots adding<br>• subtracting maps, color concepts texturing with bitmap files etc. |
| **5.** | **Final Drawings** |
| | • Editable patch and editable norms patch parameters and modeling tools norms modifiers and parameter modify tools, mesh smooth and Interaction, editable poly and low polygon modify, convert 3D objects to editable poly, working with vertex edge polygon and elements adding and, subscripting with modifiers quick slice cut bevel inset outline extended scaling rotation movement of scale parameters and modeling, apply material on surfaces, U V W mapping tiling, diffuse mapping and creating new tercouse, bitmap material creating mirror and glossiness, multi material editing maps<br>• Introduction to lights, universal concepts& 3ds max representation, sun study & positioning lights, main& Subordinate lights, types of lights – Omni, Spot, Directional etc. |

## E. RECOMMENDED STUDY MATERIAL

## F. EVALUATON

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

| BIDEID5201.1 | HERITAGE INTERIORS | 2 Credits [LTP: 0-1-2] |
|---|---|---|

# A. OBJECTIVE

- To create awareness about the rich Indian cultural heritage and understand importance of conserving the heritage in modern context.
- To understand the spaces, volumes, materials, surfaces, constructive aspects, actual and past functions and configurations, degradation, etc. as a result of continuous modification through time

## B. COURSE OUTCOME

After studying this course you should be able to:

- To be able to apply knowledge of heritage in modern day context through different space making elements.
- Understand about various region wise cultural impact on the elements of interior design.
- Research and document existing interior elements in context of heritage.
- To understand different construction techniques, and art and craft involved in making spaces of heritage interiors.
- Student will be able to Design a space in modern context using the knowledge of heritage interiors.

# C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| 1. | **Introduction to heritage interiors** | 6 |
| 2. | **Cultural Impact of heritage interiors** | 6 |
| 3. | **Lighting Systems in Interiors** | 6 |
| 4. | **Color Schemes in Interiors** | 9 |
| 5. | **Design Scheme** | 9 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | **Introduction to heritage interiors** |
| | • Introduction of unit<br>• Broad overview about the Indian heritage since Indus valley civilization till post-colonial era.<br>• Different elements of heritage interiors.<br>• Design in historical context. |
| 2. | **Space planning of heritage buildings** |

| | |
|---|---|
| | • To study about various region wise cultural impact on the elements of interior design.<br>• Contextualization of spaces in buildings<br>• Impact of climate, region and culture on space planning |
| **3.** | **Traditional design technology** |
| | • To study the design technology used during the older times.<br>• Design and technology of heritage listed buildings.<br>• Wall, floor, windows etc. treatments during heritage context.<br>• Heritage conversions. |
| **4.** | **Research Study** |
| | • Research and document existing interior elements in context of heritage.<br>• Identify different construction techniques, and art and craft involved in making space. |
| **5.** | **Documentation** |
| | • Documentation of the researched area with understanding of the historical context with present scenario. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No | Reference Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Adaptive Reuse of the Built Heritage: Concepts and Cases of an Emerging Discipline | BiePlevoets Koenraad Van Cleempoel | 2019 | pbcintl |

## F. EVALUATON :

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

| BIDEID5201.2 | PRODUCT DESIGN | 2 Credits [LTP: 1-0-2] |
|---|---|---|

## A. OBJECTIVE

To provide knowledge of product design and applying various techniques using innovative material to create products that are based on anthropological studies (universal design) integrating manufacturing and marketing processes.

## B. COURSE OUTCOME

- To understand and apply the elements of Interior Design & its impact on the interior layout and understand the spatial relationships according to the function of the space by applying principles of space planning in an interior layout
- To acquire knowledge about anthropometrics of a given space
- To develop understanding and be able to design a chosen furniture by analyzing the different materials and produce detailed drawings
- To evaluate the importance of clients, brief and innovation in design.
- To design a product considering universal design.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | - | - | - | - | – | – | – | – | – | – | – |
| CO2 | 2 | 2 | - | 2 | - | – | – | – | – | – | – | – |
| CO3 | 3 | - | 3 | - | - | – | – | – | – | – | – | – |
| CO4 | - | - | - | 2 | - | – | – | – | – | – | – | – |
| CO5 | - | - | 3 | 3 | - | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 2 | 2 | 1 | 1 |
| CO2 | 3 | - | - | 3 |
| CO3 | 1 | 2 | 1 | 2 |
| CO4 | 1 | 1 | 1 | 2 |
| CO5 | 1 | 2 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours |
|---|---|---|
| 1 | Introduction to Product Design | 6 |
| 2 | Anthropology & Product design | 6 |

| | | |
|---|---|---|
| 3 | Aspects of Product Design | 9 |
| 4 | Product Design | 9 |
| 5 | Industrial product design. Element design for differently abled | 6 |

## D. DETAILED SYLLABUS

| UNIT | CONTENTS |
|---|---|
| **1** | **Introduction to Product Design** |
| | **I A-** Introduction to Product Design, Importance, Definitions, History, Elements, Relevance, Role of Product designers<br><br>**I B- Designing a daily use small product. Eg: Calendar, cup, stationary organizer, coasters, etc.** |
| **2** | **Anthropology & Product design** |
| | **II A -** Human factors influencing product design and its application<br><br>- Anthropology, activities, nature, behavior and effects<br>- Physical environment, relationship between man and machine<br>- Information processing and Control system in Humans<br>- Application of anthropometry in response to environment<br>**II B- Designing a daily use object applying human activities eg: Chair, table etc.** |
| **3** | **Aspects of Product Design** |
| | **III A-** Understanding Human sensory system and its mechanism, Arrangement of physical space<br><br>- Visual sensory, processing, qualitative and quantitative aspects<br>- Alphanumeric, symbols & codes.<br>**III B- Design a visual sensory based product** |
| **4** | **Product Design** |
| | **IV A-** Design principles and elements applying specific criteria based on requirements or client brief,<br><br>- Using innovative Material and construction technology and environment friendly<br>- Flexible, versatile and user-friendly product designing<br>**IV B- Designing a Multi utility product.** |
| **5** | **Industrial product design. Element design for differently abled** |

| | |
|---|---|
| | **V A-** Introduction to Industrial design<br><br>- Introduction to universal design in product<br>- Understanding design for differently abled<br>**V B- Designing Industrial design product considering universal design.** |

## E. MODEL EXERCISE/ ASSIGNMENTS/ PROJECTS:

- Seminar presentations (Student works open for all) / Multimedia presentations/PPT's
- Market surveys for latest materials available in market
- Analyzing interiors of existing buildings
- Group Discussions / Flipped Classrooms

## F. RECOMMENDED STUDY MATERIAL:

| Sr. N | Reference Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1 | An introduction to Art, Craft, Technique, Science & Profession of Interior Design | A Kasu | | |
| 2 | Handbook of Speciality elements in Architecture | McGrawhill Co. USA | 1982 | |
| 3 | Time Saver standards for Interior Design | | | |
| 4 | An invitation to Design | Helen Maric Evans | | |
| 5 | Interior design illustrated | D.K. Ching | | |

# SYLLABUS

# VI Semester

| BIDCID6101 | ADVANCE MATERIALS | 2 Credit [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

This course introduces to the study of innovative materials and technologies which are available in the market with cost, maintenance and impact on environment for development of appropriate design decisions.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Need for advanced materials and technologies
- CO2. Knowledge of innovative materials and technologies, their applications in various spaces in interiors and being updated with current market trends.
- CO3. Exploring a wide range of materials and technologies with regards to Automation, Advanced lighting technologies, HVAC and thermal comfort, wall coverings, Flooring, Smart furniture, Walling and partitions
- CO4. Impact of these materials on environment
- CO5. Application of advanced materials.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | - | - | - | - | – | – | – | – | – | – | – |
| **CO2** | 2 | 2 | - | 2 | - | – | – | – | – | – | – | – |
| **CO3** | 3 | - | 3 | - | - | – | – | – | – | – | – | – |
| **CO4** | - | - | - | 2 | - | – | – | – | – | – | – | – |
| **CO5** | - | - | 3 | 3 | - | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | 2 | 1 | 1 |
| **CO2** | 3 | - | - | 3 |
| **CO3** | 1 | 2 | 1 | 2 |
| **CO4** | 1 | 1 | 1 | 2 |
| **CO5** | 1 | 2 | 2 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit (Hours) |
|---|---|---|
| **1.** | Introduction | 4 |
| **2.** | Designing interiors spaces to accommodate future uses | 4 |
| **3.** | Trends in global and Indian market | 4 |
| **4.** | Impact on environment - Green rating for materials | 6 |
| **5.** | View and Presentations | 6 |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction** |
| | • Understand the advanced materials and technologies available.<br>• The need and importance of advanced materials in interior design |
| **2.** | **Designing interiors to accommodate future uses** |
| | • Design multipurpose spaces that allow for adaptability, both for future uses and for several uses by the same occupants. ·<br>• Use modular design to foster adaptability.<br>• Using modular or systems furniture, which allows for ongoing reconfiguration of space without major disruption to the permanent interior layout and electrical/mechanical distribution systems.<br>• Exploring a wide range of materials and technologies with regards to Automation, Advanced lighting technologies, HVAC and thermal comfort, wall coverings, Flooring, Smart furniture, Walling and partitions |
| **3** | **Trends in global and Indian market** |
| | • Interior products with recycled content trending globally<br>• Renewable materials like- Wheat straw, Corn stalks, Polylactide (PLA) (made from corn starch), Cork, Bamboo, Sunflower seed hulls, Soybeans, Wool, Linen, Silk, Ramie<br>• Understand physical properties and visual characteristics of the materials like- dry wall, ceiling tile, insulation, carpet and carpet tile, resilient flooring, metal components, furniture, fabrics, tile, wall covering, and composite wood-based products. Many are made from sawmill waste, a pre-consumer recycled material.<br>• Application, installation, maintenance and cost |
| **4** | **Impact on environment - Green rating for materials** |

| | |
|---|---|
| | • Understanding the impact of advanced materials on environment.<br>• The importance and need of green rating for materials. |
| **5** | **Implementation** |
| | • Detailed study report on materials through case studies, factory visits, market studies<br>• Design exercise: Design a space using advanced materials |

## E. RECOMMENDED STUDYMATERIAL

| Sr.No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Interior Materials and Surfaces: The Complete Guide | Helen Bowers | 2005 | Firefly books |
| 2. | Material Matters: New Materials in Design | Phil Howes Zoe Laughlin (Author ) | 2012 | Black dog press |

## F. EVALUATION

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

| BIDCID6201 | INTERIOR DESIGN STUDIO - V | 6 Credit [LTP: 1-0-6] |
|---|---|---|

## A. OBJECTIVE

- To introduce to students, the interior design of a building with complexities related to multi-functional spaces, services, structures and large scale site planning.
- To accommodate more than one Building Plan.
- To help students evolve the integrated understanding of the complex relationship between forms, function and space.
- To initiate the concepts and implementation of campus planning layout plans, services in MEP, HVAC and structures, site planning, landscaping, pedestrian and vehicular movement and segregation for Large Scale Spaces.
- This course introduces HOSPITALITY INTERIORS-RESORT DESIGN.
- To help students evolve the integrated understanding of the complex relationship between , function and space of multifunctional area;
- For the entire semester, you will take up a single design project – HOSPITALITY INTERIORS which may include- INTERIORS OF RESORT DESIGN, which will cover major areas of a resort, also including- cottages, rooms of different category, souvenir shop, banquet etc.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Observe, research, document, and apply ergonomic and anthropometric aspects of interiordesign with respect to individual spaces.
- CO2. Understand the importance of case studies, and learn to do so.
- CO3. To learn to develop design concepts for the design problem introduced.
- CO4. To learn to transfer the conceptual idea into drawings & prepare technical design drawings for design problem.
- CO5. Detailed design implementation

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | 2 | - | – | – | – | – | – | – | - | - |
| CO2 | - | - | 1 | - | – | – | – | – | – | – | - | - |
| CO3 | 3 | 2 | 2 | - | – | – | – | – | – | – | 3 | 2 |
| CO4 | 3 | 1 | 1 | 1 | – | – | – | – | – | – | 3 | 1 |
| CO5 | 2 | 3 | 2 | - | – | – | – | – | – | – | 2 | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 3 | - | - | 3 |
| **CO2** | 1 | 2 | 1 | 2 |
| **CO3** | 1 | 1 | 1 | 2 |
| **CO4** | 1 | 2 | 2 | 1 |
| **CO5** | 3 | - | - | 3 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit(Hours) |
|---|---|---|
| **1.** | **Introduction to design Project** | **16** |
| **2.** | **Case Studies** | **20** |
| **3.** | **Design Concept** | **20** |
| **4.** | **Technical drawings** | **20** |
| **5.** | **Layout Plans** | **20** |

## D. DETAILED SYLLABUS

| Unit | Unit Details |
|---|---|
| **1.** | **Introduction to design Project** |
| | • To introduce to students, the design of a building with complexities related to hospitality, services, structures and site planning.<br>• Conclusion and summary of unit. |
| **2.** | **Case Studies** |
| | • Introduction of unit.<br>• Understanding the role & process of a case study.<br>• Choose & select relevant case examples related to your project.<br>• Understanding the principles and standards of different areas of a RESORT and also the anthropometry and ergonomics inside a given space.<br>• Study and analyze an existing resort w.r.t. the design project. |

| | |
|---|---|
| **3.** | **Design Concept** |
| | • Developing concepts for the design project.<br>• To help students evolve their design by understanding relationship between forms, function and space.<br>• Explain your design idea with the help of sketches. |
| **4.** | **Technical drawings** |
| | • Plan, Sectional Elevation**,** furniture layout.<br>• Detailed interior drawings.<br>• Make appropriate furniture details. |
| **5.** | **Layout Plans** |
| | • Electrical layout.<br>• Lighting layout.<br>• Plumbing layout<br>• Flooring pattern<br>• Ceiling plan<br>• Wall finishes |

## MODEL EXERCISE/ ASSIGNMENTS/ PROJECTS:

Project: HOSPITALITY INTERIORS/ RESORT DESIGN / Students will strictly work on the interior part, of the given plan. They can get those plans from FPA Department too.

## E. RECOMMENDED STUDY MATERIAL

| Sr. No | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Interior Design Reference Manual. | Ballast, David Kent | 2010 | Belmont, CA: Professional Publications Inc. |
| **2.** | Product and Furniture Design. | Kim, Young-Yun and Thompson, Rob | 2011 | London: Thames and Hudson. |
| **3.** | Furniture Design and Construction for the Interior Designer. | Natale, Christopher | 2009 | New York: Fairchild Books. |
| **4.** | Furniture: 50 Real-Life Projects Uncovered. | Saville, Laurel and Stoddard, Brooke. | 2008 | Minneapolis, MN: Rockport Publishers. |

## F. EVALUATON

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

| BIDCID6202 | WORKING DRAWING – II | 3 Credits [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To introduce the concepts and fundamentals of Working Drawing.
- To familiarize the students with the language of architecture & buildings as two dimensional and three dimensional representations.

## B. COURSE OUTCOME

After studying this course you should be able to:

- To prepare advanced level working drawings for a given building design.
- To prepare structural layout with necessary details based on the structure of the building.
- To prepare detailed service drawing including electrical and plumbing layout along with schedules.
- To incorporate the knowledge of interior finishes and specifications for preparing working drawings.
- To document the entire set of working drawings with the aim of presenting the same for securing placement for practical training.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | - | - | - | - | – | – | – | – | – | – | – |
| **CO2** | - | - | 3 | - | 2 | – | – | – | – | – | – | – |
| **CO3** | - | - | 2 | - | 3 | – | – | – | – | – | – | – |
| **CO4** | - | - | 3 | - | 3 | – | – | – | – | – | – | – |
| **CO5** | 3 | - | - | - | 3 | – | – | – | – | – | – | – |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 2 | - | 2 | 2 |
| **CO2** | - | 3 | - | 2 |
| **CO3** | 1 | 1 | 1 | - |
| **CO4** | 1 | - | 1 | 1 |
| **CO5** | - | 1 | 1 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | **Center Line Plan** | 8 |
| 2 | **Preparation of Service Drawings** | 10 |
| 3 | **Preparation of Interior Drawings** | 10 |
| 4 | **Preparation of BOQ** | 10 |
| 5 | **Construction Detail** | 10 |

## D.DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| 1. | **Center Line Plan** |
| | • Preparation of Centre Line plan of large scale building |
| 2. | **Preparation of Service Drawings** |
| | • Preparation of Supporting Drawing.<br>• Preparation of Door Window Schedule and Details<br>• Electrical Layout of all floors<br>• Plumbing and Drainage Plan of All floors and terrace<br>• HVAC layout |
| 3. | **Preparation of Interior Drawings** |
| | • For the large scale project, the following set of drawings need to be produced.<br>• Flooring detail, False Ceiling detail,<br>• Wall finishes drawing, Specifications sheet |
| 4. | **Preparation of BOQ** |
| | • Preparation of BOQ for major design project of Vth semester |
| 5. | **Construction Details** |
| | • Other construction details related to the project. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Working Drawing Handbook | Keith Syles | 1998 | Architectural Press Oxford |
| 2. | Arch. Drawing and Light Construction | James G. Gausett , Edward J. Muller | 1999 | Grav – Prentice Hall |
| 3. | The Professional Practice of Architectural Working Drawings | Osamu A. Wakita, Richard M. Linde and Nagy R. Bakhoum | 4 th edition (2011) | John Wiley & Sons |

## F. EVALUATON

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

**BIDCID6203 DISSERTATION & PRE-THESIS SEMINAR 8 Credits [LTP: 1-0-7]**

## A. OBJECTIVES:

- To do a research study related to the field of Interior design.
- To provide the students an opportunity to undertake research work on a topic of theirchoice.

## B. OUTCOMES:

- Identify a relevant topic of importance in the field of Interior design and justify its need bycritical analysis of the pros and cons associated with it
- Develop the design principles and elements derived by the background study of the topic in the form of a synopsis containing the aim, objectives, limitations and methodology of the dissertation study
- Evaluate the data extracted from the literature review of the dissertation topic and conclude with inferences which shall be directly applicable to the final study
- Assemble the data collected and compound them in the form of a relevant study which can later be converted to a report form
- Implement the critical analysis of pros and cons of the topic, design principles and elements, outcomes of the synopsis and data extracted from the literature review in the form of a study report and provide conclusion and inferences which are imperative for the justification of topic chosen

## C. OUTLINE OF THE SUBJECT

| Unit No. | Title of the Unit | Time required for the Unit (Hours) |
|---|---|---|
| 1 | Research Formulation | 8 |
| 2 | Research Design | 8 |
| 3 | Research Data | 12 |
| 4 | Research Analysis & Report | 8 |
| 5 | Thesis Seminar | 12 |

## D. DETAILED SYLLABUS

| UNIT | CONTENT |
|---|---|
| **1.** | **Research Formulation** |
| | Research Formulation: The students of the final year are required to undertake research on a topic related to the field of spatial planning on issues emerging out of the present trends and future prospects of the Thesis Project selected. The Thesis Project should be sufficiently large and complex so that student can demonstrate the Skills and Knowledge acquired during the course. The project selected for the Thesis project should be large enough for a built up area more than 7500 Sqm. The project program can be hypothetical however the site selected should be real. Students may select live projects that have real program and objective. |
| **2.** | **Research Design** |
| | Once the problem is formulated the student has to undertake extensive literature survey and state in clear terms the working hypothesis. Students are required to state the conceptual structure within which research would be conducted by defining the aim, objectives, scope & limitations of work. |
| **3.** | **Research Data** |
| | Data shall be collected keeping in mind the cost, time and other resources. Primary data can be collected either through experiment, through survey or by observation such as personal interviews, telephonic interview, mailing of questionnaire or through schedules. Secondary data such as census data, literature studies, unpublished or published thesis or dissertation can be collected. |
| **4.** | **Research Analysis & Report** |
| | The analysis of data requires a number of closely related operations such as establishment of categories. The application of these categories to see data through coding, tabulation and then drawing statistical inference. Draw conclusions and identify architectural issues involved in the project design and construction. Define strategy to address these issues in the design proposal. Prepare a report of what has been done. The interior layout of the report should be as follows: the preliminary pages, the main text and end matter. The preliminary pages carry title, declaration, certificate, acknowledgement, list of illustration & tables. The main text of the report should have introduction, review of literature & methodology. The end matter will include glossary and annexure. |
| **5.** | **Thesis Seminar** |
| | Criteria of selection of the site for the thesis project and justification for how the project will support the conceptual idea for the project. Mood board, zoning regulators & standards applicable to the project. Analytical studies of building prototypes as a whole or in part comparable to the selected project. Formulation of programme of requirements. Conceptual Site analysis and zoning of activities on site. |

## E. MODEL EXERCISE/ ASSIGNMENTS/ PROJECTS:

- Seminar presentations
- Report writing

## F. RECOMMENDED STUDY MATERIAL:

| Sr. No | Reference Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Architectural Research Methods | Groat L, Wang D. | | John Wiley & Sons, Inc |
| 2. | The Conduct of Inquiry | Kaplan A. | | Chandler, San Francisco |
| 3. | Thinking Architecture; | Zumthor P. | | Birkhauser, Basel, Switzerland |
| 4. | Methodology of Research and issues in Education | Shinde S.P. (Dr.) | | Surabhi Educational Society, Hyderabad |

## B. RECOMMENDED ONLINE STUDY MATERIAL:

**i) Other resources**

| Sr. N | Name of the resource | link for the Resource | Date of creation | Date referred |
|---|---|---|---|---|
| 1 | | | | |

| BIDCID6204 | INTERIOR LANDSCAPE DESIGN | 3 Credit [LTP: 2-0-2] |
|---|---|---|

## A. OBJECTIVE

The objective of the course is:

- To study the concepts of interior landscaping and their application in the design of interior spaces.
- To understand exposure to various concepts, ideas and techniques prevalent in interior landscape design.
- To develop an understanding about the design of interior landscape with special emphasis on the choice and care of plant materials used in the interior spaces.

## B. COURSE OUTCOMES

After studying this course you should be able to:

- CO1. Understands the scope of landscape architecture and elements of landscape in interior spaces.
- CO2. Understands the impact of human activities on the environment and the role of architect in mitigating it.
- CO3. Understand History of Landscape Architecture
- CO4. Develop the drawings required to solve various landscape construction details (paving, Curbs, steps, roof garden, retaining walls).
- CO5. Understand effect of time on planting design

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO2 | 3 | 3 | - | – | – | – | – | – | – | – | 3 | 3 |
| CO3 | 3 | - | 3 | – | – | – | – | – | – | – | 3 | - |
| CO4 | 3 | - | - | – | – | – | – | – | – | – | 3 | - |
| CO5 | 2 | - | 3 | – | – | – | – | – | – | – | 2 | - |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 1 | 1 | 1 | 1 |
| CO2 | 2 | - | 1 | 2 |
| CO3 | 2 | 1 | 1 | 3 |
| CO4 | 1 | 1 | 1 | 1 |
| CO5 | 1 | 1 | 3 | 1 |

## C. OUTLINE OF THECOURSE

| Unit No. | Title of the unit | Time required for the Unit(Hours) |
|---|---|---|
| 1. | **Interior landscaping** | 12 |
| 2. | **Physical requirements of plants** | 12 |
| 3. | **Interior landscaping elements & principles** | 12 |
| 4. | **Exercise on interior landscape** | 12 |
| 5. | **Landscape design development** | 12 |

## D. DETAILEDSYLLABUS

| Unit | Unit Details |
|---|---|
| 1. | **Interior landscaping** |
| | • Definition of landscape<br>• Classification of plants, indoor plants and their functions, layout & components, Floriculture – commercial, ornamental, Selection of plants & pest control.<br>• Hardscape and Soft scape |
| 2. | **Physical requirements of plants** |
| | • Physical requirements of plants – light, temperature, water, planting medium, soil separator, weight of plants, acclimatization & maintenance.<br>• Techniques to meet physical requirements.<br>• Plant selection criteria in landscape based upon visual, functional, micro-climatic and ecological aspects.<br>• Understanding effect of time on planting design.<br>• Site analysis and Site planning. |
| 3. | **Interior landscaping elements & principles** |
| | • Various interior landscaping elements – water bodies - pools, fountains, cascades<br>• Plants, rocks, artefacts, paving & lighting, Design guidelines- plant texture & colour, plant height, plant spacing.<br>• **ROOF AND DECK LANDSCAPE**<br>• Protection of the integrity of the roof and structure, provisions for drainage, light weight planting medium, irrigation, selection of materials, water proofing, provision for utilities and maintenance. |
| 4. | **Exercise on interior landscape** |
| | • Introduction to **Design Concept development**<br>• Design exercise for pervious semester design problem.<br>• Conceptual zoning of landscape areas.<br>• Conceptualization of different zones and materials required for it.<br>• Segregation of hardscape & softscape. |
| 5. | **Landscape design development** |

| | |
|---|---|
| | • Documentation and presentation of master plan.<br>• Layout plan<br>• Material plan<br>• Planting plan<br>• Lighting plan<br>• Basic gradation plan<br>• Sections and elevations |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Time saver standards for landscape architecture | | | |
| 2. | Planting design | TheodoreD.Walker | | VNR Publications New York |
| 3. | Landscaping Principles and Practices | Jack E.Ingels | | Ingels,Delmar Publishers. |

## F. EVALUATON

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

| BIDCID6205 | PORTFOLIO DEVELOPMENT & PRESENTATION | 2 Credit [LTP: 1-0-2] |
|---|---|---|

## A. OBJECTIVE

This course will enable you to develop and design your own portfolio in hardcopy format. Techniques for making an online portfolio will also be discussed with you during the course. The portfolio need to showcase originality, style and philosophy of interior architecture and design. It should comprehensively showcase the skill and knowledge acquired during the course.

The objective of the course is:

- To produce a comprehensive portfolio presenting the acquired skills and capabilities of the student in various courses aligned to skills and techniques that the industry requires.
- To involve technical analytical skills acquired during the course in developing a portfolio in a practical environment choosing a topic for the study displaying innovation and initiative, research investigation, collected primary and secondary data and communicate the same through portfolio development.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. Understand the portfolio themes and types of portfolio.
- CO2. Classify the different boards and its effectiveness in Portfolio.
- CO3. Showcase professional and technical capabilities
- CO4. Understand theme with different design concepts.
- CO5. Learn the development of fashion portfolio with computer aided design

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | – | – | – | – | – | – | – | - | - |
| CO2 | - | - | 3 | – | – | – | – | – | – | – | - | - |
| CO3 | 3 | - | 2 | – | – | – | – | – | – | – | 3 | - |
| CO4 | - | - | 3 | – | – | – | – | – | – | – | - | - |
| CO5 | 2 | 3 | 2 | – | – | – | – | – | – | – | 2 | 3 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 1 | 1 | 1 | 2 |
| CO2 | 3 | - | 1 | 3 |
| CO3 | 2 | 1 | 1 | 1 |
| CO4 | 1 | 1 | 2 | 2 |
| CO5 | 2 | 2 | 1 | 1 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Introduction** | **6** |
| **2** | **Photography** | **6** |
| **3** | **Compilation** | **6** |
| **4** | **Presentation** | **9** |
| **5** | **E-portfolio & virtual portfolio** | **9** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Introduction** |
| | Importance of portfolio, Types of portfolios, Themes etc. |
| **2.** | **Photography** |
| | Stylized photography, Photo composition, effectiveness, etc. |
| **3.** | **Compilation** |
| | Selection and Compilation of work. |
| **4.** | **Presentation** |
| | Final presentation in the form Exhibition, Jury and print etc. |
| **5.** | **E-portfolio & virtual portfolio** |
| | Introduction to e-portfolio & virtual portfolio |

## E. RECOMMENDED STUDYMATERIAL

| Sr.No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| **1.** | Figure Drawing for Fashion Design, | Drudi, E. | 2011 | Amsterdam, Pepin Press. |
| **2.** | Fashion Artist: Drawing Techniques to Portfolio Presentation | Bruke, S. | 2006 | U.K.,Burke Publishing. |
| **3.** | 9.Heads: A Guide to Drawing Fashion,London, | Riegelman, N. | 2006 | London, Thames a Hudson. |
| **4.** | Colors for Modern Fashion: Drawing Fashion with ColoredMarkers | Riegelman, N. | 2006 | London, Thames a Hudson. |

## F. EVALUATON

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

**BIDEID6101.1 HISTORY OF RAJASTHAN ART & CULTURE 2 Credits [LTP: 2-0-0]**

## A. OBJECTIVE:

To develop sensitivity to other dimensions of Rajasthan Art, Culture and Architecture.

## B. COURSE OUTCOME

- Classify the user needs of the past times and how they translate into program and manifestation in design interms of space, materials and culture.
- Explore and learn about the different classifications of arts and crafts based on nature and materials used.
- Identify the process of building stone formations and its wide usage in Rajasthan.
- Learn and explore the new artisans and craftsmanship innovation and the role of technology and applications in stone.

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| 1 | Background & regional formation of Rajasthan | 9 |
| 2 | Classification of Arts & Crafts based on nature and material used | 3 |
| 3 | Building stone craft tradition in Rajasthan | 9 |
| 4 | Building elements in stone | 9 |
| 5 | Reinterpretation of stone craftsmanship | 6 |

## D. DETAILED SYLLABUS

| UNIT | CONTENTS |
|---|---|
| **1** | **BACKGROUND & REGIONAL FORMATION OF RAJASTHAN** |
| | • Traditional geographical, political and cultural divisions<br>• Pre-and proto history of Rajasthan focusing on various prehistoric cultures<br>• Inter-religious interactions- Aspects of arts and crafts, literature and cultural relations with neighboring states during respective historical eras. |
| **2** | **CLASSIFICATION OF ARTS & CRAFTS BASED ON NATURE AND MATERIAL USED** |
| | • The *Chhatiskarkhana* of Jaipur; Crafts - Jewelry, metal, wood, lac-based crafts, textiles, paper crafts<br>• Miscellaneous arts – Miniature painting, frescoes, Araish etc.; Tribal crafts; Influence of arts and crafts on built form |
| **3** | **BUILDING STONE CRAFT TRADITION IN RAJASTHAN** |

| | |
|---|---|
| | • Stone types of Rajasthan<br>• Shaping the stone – quarrying, selection, dressing, finishing, carving and patterning; Stone craft clusters in Rajasthan;<br>• Stone Masonry (walls; dry and with lime mortar / cladding and finishes). |
| | **BUILDING ELEMENTS IN STONE** |
| | • Architectural elements in stone (jharokhas, copings, railings, jaalis); Landscape elements in stone (fountains, water bodies, benches, signage, lamps)<br>• Interior elements/sculptures/artifacts of various sorts; Maintenance of Stone Buildings. |
| **5** | **REINTERPRETATION OF STONE CRAFTSMANSHIP** |
| | • The new generation artisan<br>• Innovations and adaptations to new tools and applicationsin stone<br>• Contemporary use of stone while studying works of Raj Rewal, Charles Correa, Ashok B Lall and Nimish Patel. |

## E. MODEL EXCERCISES/ ASSIGNMENTS/ PROJECTS:

- Assignments and Practice exercises, Seminar
- Case studies of renowned buildings and architects

## F. REFERENCE BOOKS


| S. N. | Reference Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1 | Rima Hooja, History of Rajasthan, Rupa Co., New Delhi | | 2006 | |
| 2 | The Stone Crafts of Rajasthan- A Manual, CDOS, Jaipur | | 2011 | |
| 3 | V.S. Bhatnagar, Life and times of Sawai Jai Singh, Impex India, New Delhi | | 1979 | |
| 4 | Rajasthan Sate Gazeteers, Volume – 2, History and culture, Directorate DistrictGazetteers, GoR& Volume-3, Economic Structure and Activities | | | |
| 5 | Jadunath Sarkar, History of Rajasthan | | | |

| BIDEID6101.2 | SUSTAINABLE DEVELOPMENT IN INTERIOR DESIGN | 2 Credits [LTP: 2-0-0] |
|---|---|---|

## A. OBJECTIVE

To study and analyze the salient aspects of sustainability and the need of study in the present context of contemporary world and challenges.

## B. COURSE OUTCOME

After studying this course you should be able to:

- CO1. To develop an understanding of the need for Environmental Clearance, role of various agencies/committees, environmental laws, regulatory authorities and process of clearance
- CO2. To have knowledge of need and purpose of EIA, its process and Impact on the environment, society and culture
- CO3. To be aware of the different green rating agencies and their criteria‘s for providing certification both applicable in India and Abroad
- CO4. To be aware of LEED as a tool for measuring and rating a building‘s environmental performance.
- CO5. To be aware of GRIHA as a tool for measuring and rating a building‘s environmental performance so as to evaluate building design and site development as a step towards sustainable development.

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Hours) |
|---|---|---|
| **1** | **Concepts of sustainability** | 6 |
| **2** | **Sustainable Concept in Interior Designing** | 6 |
| **3** | **Sustainable Building Materials and Construction** | 6 |
| **4** | **Recycling and Reuse** | 9 |
| **5** | **Case Studies and Rating systems** | 9 |

### D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Concepts of sustainability** |
| | • Introduction to Unit<br>• Energy and Global environment, Energy use and Climate change – Its impact, Types of Energy systems,<br>• Concept of Sustainability - Principles of conservation -synergy with |

| | |
|---|---|
| | nature<br>• Ethical- environmental degradation<br>• Summary & conclusion of unit |
| **2.** | **Sustainable Concept in Interior Designing** |
| | • The Concept of Sustainable Interiors.<br>• Sustainable interiors designing by adopting various policies.<br>• Principles of Sustainable Interior Design.<br>• Benefits of Green Interiors<br>• Indoor Environment Quality (IEQ)<br>• Elements associated to IEQ |
| **3.** | **Sustainable Building Materials and Construction** |
| | • Introduction to Unit<br>• Properties, Uses and Examples of -Primary, secondary and Tertiary Sustainable Materials, Principles to improve the energy efficiency - siting and vernacular design, shade, ventilation, earth shelter, thermal inertia and air lock entrances.<br>• Techniques of sustainable construction - technologies, methods of effectiveness, and design synthesis<br>• Alternative materials and construction methods:<br>• Use of local materials and on site growth of food, fuel and building materials<br>• Summary & conclusion of unit |
| **4.** | **Recycling and Reuse** |
| | • Pre building, Building, Post building stages - Architectural Reuse, Waste prevention,<br>• Construction and Demolition recycling- Conservation of natural and building resources<br>• Energy and material savings<br>• Types of wastes<br>• Elimination of waste and minimize pollution- various Decomposing methods<br>• Innovative reuse of various wastes |
| **5.** | **Case Studies and Rating systems** |
| | • Sustainable Development Case Studies: illustrated examples of the planning, development, and construction.<br>• Green Interiors and various national and international rating systems for sustainability in the field of Interior Design<br>• Conduct a study on concept of green building. Visit any green building; absorb the place, design, interior elements, materials and construction techniques. Interview with appropriate persons and make a case study report. |

## E. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Integrated approach to sustainable Development | B.C.Bose | | Rajat Publications, Delhi |
| 2. | Environmental control systems Heating, Cooling, Lighting | Fuller Moore | | McGraw Hill, Newyork. |
| 3. | Sustainable practices in built environment | Caring A.Langston, Grace K.C.Ding | 2 nd Edition | Butterworth-Heinmann Linacre House JordanhillOxford |
| 4 | Sustainable Building Design Manual Vol I & II | | | TERI, New Delhi |
| 5 | GRIHA Manual (Vol 1-5) | | | TERI, New Delhi |

## F. EVALUATON

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

# SYLLABUS

# VII Semester

| BIDCID7301 | THESIS DESIGN PROJECT | 22 Credits [LTP: 2-0-20] |
|---|---|---|

## A. OBJECTIVE

Individual design project approved by department.

## B. COURSE OUTCOME

After studying this course you should be able to:

- To be able to analyze Interior Design by dividing it into its organizational, structural, functional and experiential components
- To develop critical thinking and social responsibility
- To demonstrate competency in reading and producing Interior Design drawings, making physical models and/or producing 2D and 3D digital models and communicate their ideas using techniques and conventions of design representation
- To understand the social and political implications inherent in design interventions, and to make design drawing required for executing a project and take responsibility for their design choices and judgments
- To produce a creative project responding to a specific or typical program consisting a design solution or an original contribution to disciplinary knowledge

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 2 | - | - | - | - | - | 1 | - | - | - | 2 | - |
| CO2 | - | 2 | - | 2 | - | - | - | - | - | - | - | 2 |
| CO3 | 2 | 1 | 1 | - | - | - | - | - | - | - | 2 | 1 |
| CO4 | 1 | - | 1 | - | - | - | - | - | - | - | 1 | - |
| CO5 | - | 2 | 2 | - | - | 1 | - | - | - | - | - | 2 |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| CO1 | 1 | 2 | 1 | 2 |
| CO2 | - | 3 | 2 | 1 |
| CO3 | 2 | - | 3 | 1 |
| CO4 | - | - | 2 | 2 |
| CO5 | 2 | 1 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| 1. | Large scale project (more than 10,000 sqft site Area) having complexity of Interior Design resolutions. Culmination of all the skills acquired of Interior Design. Individual understanding of Interior Design theory, philosophy and style. Student shall engage in study, documentation, analysis and design process of the project. The theoretical part to be put together in the form of a report and the design solution to be presented in hard/soft copy with a model. |

## D. RECOMMENDED STUDY MATERIAL

| Sr. No. | Book | Author | Edition | Publication |
|---|---|---|---|---|
| 1. | Not Applicable | | | |

## E. EVALUATON

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

# SYLLABUS

# VIII Semester

| BIDCID8501 | Practical Training (Internship) | 26 Credit [LTP: 0-0-0] |
|---|---|---|

## A. OBJECTIVE

The course enables you to get associated with the architecture & interior industry and design firms and gain first-hand experience of the working systems of the industry. The period of internship is for 140 days and you are required to return to college after completion of the internship. You may utilize the summer break and join your internship during summer break, so you can get an experience of more than 140 days, if you desire.

During the internship period you are required to be in contact with the course module tutor and update him/her regularly to discuss your progress. During your internship period, your module tutor will also be in contact with your industry mentor in order to get appraised on your performance.

The objective of the course is:

- To enable you to understand and become familiar with prevalent commercial and industrial practices and standards.
- To provide opportunity to understand professionalism and adapt to the pace and pressures in a professional environment.
- To enable you to develop professional presentation abilities.
- To enhance knowledge and skills in a practical, hands-on Industry environment.

## B. COURSE OUTCOME

After studying this course you should be able to:

- To be oriented under an Interior Designer, Architect registered under COA or equivalent foreign body.
- To be a part of the process of development of conceptual ideas, presentation skills, involvement in office discussions and client meetings.
- To develop the concepts into working drawings and forward with the process of tendering procedure, site supervision during execution and coordination with the agencies involved in the construction process.
- To facilitate the understanding of the evolution of an architectural project from design to execution.
- To be a part of an actual working organization and have a practical learning experience during studies.

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME OUTCOMES**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | - | - | - | – | – | – | – | – | – | – | - | - |
| **CO2** | 3 | 3 | - | – | – | – | – | – | – | – | 3 | 3 |
| **CO3** | 3 | - | 3 | – | – | – | – | – | – | – | 3 | - |
| **CO4** | 3 | - | - | – | – | – | – | – | – | – | 3 | - |
| **CO5** | 2 | - | 3 | – | – | – | – | – | – | – | 2 | - |

**MAPPING OF COURSE OUTOCMES WITH PROGRAMME SPECIFIC OUTCOMES**

| | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|
| **CO1** | 1 | 1 | 1 | 2 |
| **CO2** | - | 2 | 3 | - |
| **CO3** | 1 | 1 | 1 | 2 |
| **CO4** | 1 | 2 | 2 | 1 |
| **CO5** | 1 | 2 | 1 | 2 |

**Note:** On the basis of mapping of COs with POs, this course is related to Employability / Skill Development / Entrepreneur

## C. OUTLINE OF THE COURSE

| Unit No. | Title of the unit | Time Required for the Unit (Days) |
|---|---|---|
| **1** | **Practical Training (Internship) & its Seminar** | **140** |

## D. DETAILED SYLLABUS

| Unit | Contents |
|---|---|
| **1.** | **Practical Training (Internship) & its Seminar** |
| | • Student shall work for a period of 140 days in an office of Architect/Interior Designer/Product Designer approved by the institution.<br>• Student shall be submitting weekly/monthly work report<br>• Student shall be submitting critical appraisal of built projects<br>• Student shall be submitting documentation of architectural details and site supervision of built projects.<br>• Student will also have to submit the research as per the supervision by the Guide. |

## E. EVALUATON

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