



SAVITRIBAI PHULE PUNE UNIVERSITY

REVISED SYLLABUS FOR BACHELOR OF DESIGN

(To be implemented w.e.f. A.Y. 2023-24)

PROGRAMME STRUCTURE

FROM FIRST TO FOURTH YEAR

BOARD OF STUDIES IN DESIGN

FACULTY OF SCIENCE AND TECHNOLOGY

PREAMBLE

The New Syllabus of the B.Des. course hence forth to be referred as the 2023 Pattern, to be implemented from the year 2023-24, is designed to address the rising expectations of knowledge to be borne in the Design field.

The interdisciplinary nature of the field of Design demands a holistic approach of knowledge, to achieve any design solution. Hence the syllabus has been designed considering 5 verticals, Design & Aesthetics, Skills, Science & Technology, Humanities and Electives. The professional core subjects are supported by science and technology courses, skill oriented courses, and the courses from Humanities & Electives.

The professional ability enhancement courses and the practical training of one semester focuses on connecting the students with the Practice.

The elective courses enables exposure to other domains and nurtures the students' proficiency and skill.

The Audit courses are introduced to acknowledge the knowledge that the student seeks in his/her area of interest but not directly contribute to the CGPA.

At the end of the course the graduating student shall be able to methodically approach a problem of creating design solution employing knowledge from various domains and at the same time making it safe, equitable, feasible and environment friendly.

The course is designed upon the Credit System Based Assessment. The syllabus is structured with the following objectives and expected outcomes

COURSE LEARNING OUTCOMES

1. Knowledge
2. Principles & Theory
3. Creative Thinking
4. Critical Thinking
5. Problem solving skills
6. Communication Skills
7. Collaborative working
8. Multicultural competence
9. Empathy & Inclusivity
10. Judgement for decision making

PROGRAMME LEARNING OUTCOMES

1. To demonstrate capabilities to solve design problems and issues.
2. To demonstrate the capability to design in multidisciplinary environments collaboratively.
3. To demonstrate leadership qualities, professional ethics and work effectively in a team.
4. To continue professional development through self-learning, design practice and higher education, and adapt to changing contexts.
5. To continuously contribute to the growth of design knowledge.
6. To pursue successful design careers nationally and internationally.
7. To pursue the role of design profession as a bonding element in nurturing happiness and harmony within society.

BACHELOR OF DESIGN

PROGRAMME STRUCTURE AND RULES

RULE NO.1: ELIGIBILITY CRITERIA

The student seeking admission to B.Des. course must have obtained minimum 50% marks in the Higher Secondary School Certificate Examination or equivalent (Diploma of State Board of Technical Education), or min 50% in B. Voc. Course of any discipline, and must also pass the Aptitude Test conducted by individual Institute/ any other Designated Authority by University of Pune /Government of Maharashtra.

RULE NO.2: SCHEME OF ASSESSMENT

A candidate to be eligible for the degree of Bachelor of Design will be required to appear for and pass examinations as under:

S. No.	SEMESTER	CREDITS
1	SEM I	20
2	SEM-II	20
TOTAL CREDITS FOR FIRST YEAR B. DES.		40
1	SEM III	22
2	SEM IV	22
TOTAL CREDITS FOR SECOND YEAR		44
1	SEM V	22
2	SEM VI	22
TOTAL CREDITS FOR THIRD YEAR		44
1	SEM VII	20
2	SEM VIII	20
TOTAL CREDITS FOR FOURTH YEAR		40
TOTAL CREDITS FOR EACH DISCIPLINE		168

Total Credits of the course =168

CREDIT SYSTEM

Credits are allotted as per the Document National Higher Education Qualifications Framework (NHEQF) and are as under:

Credits are the weightages assigned to the courses based on the following pattern:

a) One hour of Lecture --- 1 credit

b) Two hours of Studio --- 1 credit

A total of 168 credits are assigned to the curriculum of each discipline in the B. Des. Total week in one semester- 16 weeks. The credits are allotted as 20 Credits per semester, in the First and Fourth year and as 22 credits per semester in the Second and Third years.

Two credits per semester, in the First Year are assigned to Audit courses, offered by the Colleges. These will be the courses aligned with College philosophy or peripheral knowledge. These will not be added as Credits in SGPA/CGPA calculation, and will be converted to Grades.

RULE NO 3: GRANTING OF TERM

Academic Year will consist of **Two SEMESTERS** of 16 Weeks each. The internal teacher throughout the semester shall continuously assess sessional work prepared by the students. At the end of every semester, assessment shall be done either by the internal teacher / jointly by the internal and external examiners as prescribed in the examination scheme of the syllabus.

The candidates will be permitted to appear for the examinations at the end of each semester only if he/she keeps term at a college affiliated to the university and produces testimonials for:

3.1. 75% attendance in each head of passing of Theory and/or Sessional work as prescribed by the University.

3.2. Satisfactory completion of the Sessional Work prescribed for each subject and secured at least passing marks in the Internal Assessment for the same.

3.3. Good conduct

RULE NO. 4: RULES OF PASSING

4.1 To pass sessional [SS] / sessional viva [SV], the student has to earn minimum 50% marks.

4.2 To pass the theory subject head the student has to earn minimum of 45% marks in the End semester exam.

4.3 A student shall be promoted to higher class only if she/he scores 50% marks in the aggregate of the total marks of the year.

4.4 For theory subjects the failing student can repeat the end semester exam to pass the head in any semester.

4.5 To earn credits of a course (paper/SS/SV) student must pass the course with minimum passing marks / grade.

4.6 Student can apply only for the revaluation / photocopying / verification of answer sheets of End semester theory exam.

4.7 A student would be awarded B. Des. only if he/she earns 168 (100%) credits and gets passing grade in all the courses specified in the syllabus and gets passing grade of aggregate within the time permissible by the University.

RULE NO. 5: RULES OF A.T.K.T.

5.1 A student can be admitted for the third semester if he/she earns minimum **50%** credits of the total of first and second semester.

5.2 A student can be admitted for the fifth semester if he/she earns minimum **50%** credits of the total of third and fourth semester and all the credits (**100%**) of the first and second semester and passing grade of aggregate for first year.

5.3 A student can be admitted for the seventh semester if he/she earns minimum **50%** credits of the total of the fifth and sixth semesters and all the credits (**100%**) of the third and fourth semesters and passing grade of aggregate for second year.

RULE NO 6: EXAMINATIONS

Examination at the end of the Semester, shall have separate heads of passing as:

- Theory paper (P)
- Sessional (internal+ External) , (SS) and
- Sessional and viva- voce based on Sessional Work, as prescribed in the syllabus (SV).

RULE NO 7: SESSIONAL WORK ASSESSMENT

7.1 In respect of Sessional work at First, Second, Third year, and Fourth year; the target date shall be fixed for the completion of each assignment. All assignments shall be continuously assessed by the Internal Teacher during each semester and students are required to get minimum 50% marks in internal marking.

7.2 At the end of each term sessional work shall be assessed by the Internal and External examiners from amongst the panel approved by the university.

7.3 Performance of sessional/viva voce Examination shall be assessed on the basis of the depth of understanding of the principals involved and not on the basis of mere correctness or results of ornamental or colourful presentation.

7.4 Students may use computers for preparing sessional work where the nature of work is unique to an individual and stress is on content rather than skill. For the common forms of work, drawings and reports/notes shall be manually prepared.

7.5 For the First, second, and Third year, External Sessional and viva Assessment shall be done by an External Examiner who is an external to the college, i.e. teacher from other college or a Professional having expertise in the same area.

7.6 An examiner for any of the subjects of examination from First to Third year, shall have a minimum of **FIVE YEARS** of teaching or professional experience in his / her field of study.

7.7 For Final Year examination external assessment shall be carried out by a Professional not teaching in any of the colleges under University of Pune. To qualify for the External Examiner at Final Year, the professional shall have a minimum of **TEN YEARS** of professional experience.

7.8 Continuous Assessment for Sessional to be maintained and record to be kept by the subject faculty. The progressive work done by a student through out the semester to be maintained for design course.

7.9 The weightage of this continuous internal assessment [CIA] shall be 50% of the total marks allocated for the sessional work. The remaining marks to be given by the external examiner referred as External assessment [EA]. Break up of marks is mentioned in detailed syllabus at respective subjects.

7.10 Viva voce to be jointly conducted by internal and external examiner at the end of the semester and the weightage for internal and external examiner's assessment will be equal [50:50] and break up of marks is mentioned in detailed syllabus for respective subjects. For subjects having both sessional assessment and viva voce the marks to be entered as an aggregate of sessional and viva voce.

7.11 Theory Paper conducted by the University and assessed at the CAP centre.

RULE NO. 8 ASSESSMENT AND GRADE POINT AVERAGE

8.1 A grade assigned to each head based upon marks obtained by the student in the examination of the course.

Table 1 GRADING SYSTEM FOR PASSING HEADS (THEORY PAPAER)

Grade Remarks	Grade Points	% of Marks Obtained	Remarks
O	10	90-100	Outstanding
A	9	80-89	Very good
B	8	70-79	Good
C	7	60-69	Fair
D	6	50-59	Average
E	5	45-49	Pass
F	0	Below 45	Fail

Table 2 GRADING SYSTEM FOR [SESSIONAL/ SESSIONAL VIVA and AGGREGATE] (Internal Sessional, External Sessional)

Grade Remarks	Grade Points	% of Marks Obtained	Remarks
O	10	90-100	Outstanding
A	9	80-89	Very good
B	8	70-79	Good
C	7	60-69	Fair
D	6	50-59	Average
F	0	Below 50	Fail

8.2 Passing grades for various heads:

The grades O, A, B, C, D & E are passing grades for theory papers. The grades O, A, B, C & D are passing grades for sessional and/or sessional viva voce heads. A candidate acquiring any one of these grades shall be declared as pass only in that particular head.

8.3 Passing grades for Aggregate: The grades O, A, B, C & D are passing grades in the aggregate.

8.4 F grade for various heads: The grade F is a failure grade. The student with F grade will have to pass the concerned course by reappearing for the examination.

8.5 F grade for aggregate: The grade F is a failure grade for aggregate. The student with F grade will have to appear for paper &/ or sessional &/or sessional viva voce for improvement of aggregate.

RULE NO. 9 : PERFORMANCE INDICES

9.1 The semester-end grade sheet will contain grades for the course along with titles and SGPA. The final grade sheet and transcript shall contain CGPA.

9.2 SGPA: The performance of a student in a semester is indicated by a number called the **semester grade point average (SGPA)**.

The SGPA is the weighted average of grade points obtained in all the courses registered by the student during the semester.

$$\text{Semester Grade Point Average (SGPA)} = \frac{\sum_{i=1}^p C_i G_i}{\sum_{i=1}^p C_i}$$

$$= \frac{\Sigma \text{Grade Point earned} \times \text{Credits for each course}}{\text{Total Credits}}$$

For example : Suppose in a given semester a student has registered for five courses having credits C1, C2, C3, C4, C5 and his / her grade points in those courses are G1, G2, G3, G4, G5 respectively, Then the SGPA would be

$$\text{SGPA} = \frac{C1G1 + C2G2 + C3G3 + C4G4 + C5G5}{C1 + C2 + C3 + C4 + C5}$$

SGPA is calculated up to two decimal places by rounding off.

9.3. CGPA : The CGPA is the weighted average of the grade points obtained in all the courses (theory /sessional / sessional viva-voce) of all eight semesters. It is calculated in the same manner as the SGPA. It is calculated based upon the SGPA of the concerned semesters

RULE NO. 10: RESULT

Based on the performance of the student in the semester examinations, the Savitribai Phule Pune University will declare the results and issue the Semester grade sheets. The class shall be awarded to a student on the CGPA calculated in rule no. 9. The award of the class shall be as per the table below.

Table 3

S. No.	CGPA	Class of degree awarded
1	7.42 (66%) or more	First class with distinction
2	6.75 (60%) or more but less than 7.41 (65.86%)	First class
3	6.18 (55%) or more but less than 6.74 (59.98%)	Higher second class
4	5.62 (50%) or more but less than 6.17 (54.91%)	Second class

RULE No. 11: EXEMPTIONS AND SUPPLEMENTARY EXAMINATION

In case a candidate fails and desires to appear again,

a) He / she will be exempted from appearing in the subjects in which he, /she has passed.

b) A candidate will have to appear for the examination of backlog subjects along with the examination of current semester.

RULE NO.12: INTRODUCTION OF THIS CURRICULUM.

The new curriculum for the degree course in B.Des. will, be introduced gradually as under:

- a) First year B.Des course from June 2023.
- b) Second year B.Des course from June 2024.
- c) Third year B.Des course from June 2025.
- d) Fourth year B.Des course from June 2026.

RULE NO.13: OTHER RULES

The students can opt for elective from the categories defined (refer Annexure A). It should be noted that each semester, they have to opt for different Electives.

University-affiliated colleges may frame additional rules and regulations or modify these regulations if required, and once approved by the University they would be binding on the students.

CREDIT STRUCTURE & SUBJECT LIST

FROM FIRST TO FOURTH YEAR

BOARD OF STUDIES IN DESIGN

FACULTY OF SCIENCE AND TECHNOLOGY

Bachelor of Design

Credit Structure

First Year

Semester I										
S. No.	Course Code	Course name	L	St	CH	Cr	Th	SS	SV	Total Marks
1	12023001	Fundamentals of Design I	2	6	8	5	-	-	150	150
2	12023002	Freehand Drawing	2	6	8	5	-	150	-	150
3	12023003	Model Making	-	4	4	2	-	50	-	50
4	12023004	Geometric Construction	1	4	5	3	-	100	-	100
5	12023005	Basic Sciences (P)	2	-	2	2	100	-	-	100
6	12023006	Basic Sciences	-	2	2	1	-	100	-	100
7	12023007	Humanities	1	2	3	2	-	50	-	50
			8	24	32	20	100	450	150	700
8	12023008	Refer Annexure A	2	0	2	0	Total Marks = 700			
ILH = 6 Independent learning Hours should be allotted according to the academic requirement of respective subjects										

Semester II										
S. No.	Course Code	Course name	L	St	CH	Cr	Th	SS	SV	Total Marks
1	12023009	Fundamentals Of Design II	2	6	8	5	-	-	150	150
2	12023010	Design Process (P)	2	-	2	2	100	-	-	100
3	12023011	Design Process	-	4	4	2	-	-	100	100
4	12023012	Freehand Drawing & Visualisation	2	4	6	4	-	150	-	150
5	12023013	Analytical Drawing	1	4	5	3	-	100	-	100
6	12023014	Art Appreciation and Appraisal	1	0	1	1	-	50	-	50
7	12023015	Environmental Perception	1	4	5	3	-	50	-	50
			9	22	31	20	100	350	250	700
8	12023016	Refer Annexure A	2	0	2	0	Total Marks = 700			
ILH = 7 Independent learning Hours should be allotted according to the academic requirement of respective subjects.										

L= Lecture

St = Studio

CH = Contact Hours

ILH = Independent Learning Hours

Cr = Credit

Bachelor of Design

ANNEXURE- A

List of Electives & Audit Courses

S. No	Art & Design	S. No	Technology /Management	S. No	Social/Humanities/History
1	Interior Styling	1	Exhibition design	1	History of Furniture
2	Interior landscape	2	Introduction to Bamboo construction & Techniques	2	Graphic narratives
3	Soft furnishings	3	Advanced Bamboo construction & Techniques	3	Culture & Design
4	Theatre design	4	Digital animation	4	Environmental Psychology
5	Introduction to Universal Design	5	Visual Communication-Infographics	5	Gender and Design
6	Automotive styling	6	Visual Communication- Illustration	6	Anthropology
7	Fashion Image & Identity	7	Introduction to programming	7	Vernacular Design
8	Graphic Design	8	Internet of Everything	8	Sociology & Design
9	Basic Photography	9	Green building & rating systems	9	Basics of Archeology
10	Design Journalism	10	Appropriate design material &Technology	10	Basics of Ecology
11	Music & Space	11	Tensile structures	11	Climate change
12	Healthcare design	12	Facility management	12	Emergence of Global culture
13	Hospitality design	13	GIS systems	13	Addressing for Senior Citizen Population
14	UI/UX design	14	Parametric design	14	Design as a tool for Social change
15	Ephemeral design	15	Building Information Modelling	15	Film appreciation
16	Architecture Photography	16	Creative coding	16	Script writing
17	Costume design	17	Smart/Intelligent Technology systems		
		18	Creative Surface Techniques		
		19	Fibre Reinforced Plastics		
		20	Advanced construction in Fabrication		
		21	Documentary Film making		
		22	Short Film Making		
		23	Basics of Photoediting		
		24	Light design for theatre		

Audit courses

S. No	SEMESTER 1	S. No	SEMESTER 2
1	Crafts	1	Cyber Security
2	Creative Writing	2	Sign language
3	Performing Arts	3	Foreign Language
4	Yoga	4	Basics of Accounting & Book keeping
5	Calligraphy		



SAVITRIBAI PHULE PUNE UNIVERSITY

**REVISED SYLLABUS FOR
BACHELOR OF DESIGN
DETAILED SYLLABUS OF B.DES.
FIRST YEAR - SEMESTER I AND II
(To be implemented w.e.f. A.Y. 2023-24)**

**BOARD OF STUDIES IN DESIGN
FACULTY OF SCIENCE AND TECHNOLOGY**

**DETAILED SYLLABUS OF B.DES. FIRST YEAR
FOUNDATION COURSE - SEMESTER I**

FUNDAMENTALS OF DESIGN I		
COURSE CODE	12023001	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 2 Lectures + 6 Studio TOTAL = 8 hrs/week	Sessional CIA	75
	SV	75
	Paper: Nil	
TOTAL MARKS	150	
TOTAL CREDITS	5	

COURSE OBJECTIVE:

Understanding Principles and Elements of Design to help students grasp the fundamentals of design as a basic creative activity. The students will learn about the basic elements of design through exercises and study models aimed at experimentation and hands on learning.

COURSE CONTENT:

Unit 1: Introduction to design elements, point, line, plane, shape, form, space.

Unit 2: Understanding Principles of Design through compositions –
Rhythm, Harmony, Order, Chaos, Alignment, Repetition, Pattern, Balance, etc

Unit 3: Introduction to Material and Texture.

Unit 4: Color, Light (Introductory)

Unit 5: Introduction to Anthropometry (with reference to scale and proportion)

Unit 6: Scale and proportion

COURSE OUTCOME:

- The students will develop the ability to understand the fundamentals used in design, and their relevance by study of various design elements and principles and their application in two-dimensional and three-dimensional compositions.
- The students will develop understanding of the scale and proportions in relation to objects and spaces.
- The students will understand the creative process, developing their creative skills.
- They will develop awareness about psychology of visual perception.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Unit 1- Minimum 2 assignments to understand their role in design, and their connections.

Unit 2-Minimum 1 assignment for each of the design Principle.

Unit 3- Assignment on collection of 8 to10 materials for understanding of texture.

Unit 4- Colour wheel and basic colour schemes on sheets.

Unit 5- Human anthropometry, in minimum 5 body postures.

Unit 6- Golden ratio, Vitruvian man.

NOTE : All assignments to be done on A-2 size sheets.

METHOD OF INSTRUCTION

Unit 5 can be instructed by including the following typologies such as: Hospitals, Bank systems, Institutions, Corporate Offices. The discussions on assignments can be specific with respect to disciplines.

Site visit to the selected typologies can be organised for the students to observe and document to understand the anthropometry in detail.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS:

1. Visual Thinking by Frank M. Young
2. Principles Of Gestalt Psychology by Kurt Koffka
3. The Art of Looking Sideways by Alan Fletcher
4. Signs and Symbols by Adrian Frutiger
5. Principles of Design through Photography by Deepak John Matthew
6. Form, Space and Order by Francis D.K. Ching
7. Basic Design and Anthropometry by Shirish Vasant Bapat
8. Lateral Thinking by Edward de Bono
9. Drawing, a Creative process by Francis D.K. Ching

Websites: www.graphicdesignbasics.com , www.justcreative.com

FREE HAND DRAWING		
COURSE CODE	12023002	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 2 Lectures + 6 Studio TOTAL = 8 hrs/week	Sessional (SS)	150
	Internal	75
	External	75
	Paper: Nil	
TOTAL MARKS	150	
TOTAL CREDITS	5	

COURSE OBJECTIVE :

The central idea is to make freehand pencil sketching as the primary tool of transferring ideas on paper. Course objective is also to develop the skill of sketching and to orient the students towards the ability of visualisation. The students should be able to use sketching as a tool for representation of design thoughts, concepts, etc.

COURSE CONTENT:

Unit 1

Introduction to lines & strokes.

Free hand sketching principles.

Unit 2

Understanding the geometry of basic shapes for the sketching.

Sketching of ellipses and circles.

Introduction to constructive method of sketching.

Introduction to basic principles of linear perspective drawing.

Unit 3

On the spot sketching.

Sketching from Observation.

Scale and proportion.

Unit 4

Sketching of simple product and spaces, with a thrust on light, shade, material & texture.

Rendering techniques using medium like graphite pencils, soft pastels, oil pastels, colour pencils.

COURSE OUTCOME:

- The students will be able to create drawings of real and imaginary objects and develop skills of drawing and rendering from memory, observation and imagination.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

Unit 1: Minimum three numbers of assignments to cover the study of lines & strokes using various grades of Graphite pencils.

Unit 2: Minimum two assignments based upon construction method of sketching

Minimum five assignments based upon perspective drawing.

Unit 3: Min 3 exercises, should be discipline specific.

Unit 4: At least three assignments related to content described in the unit.

METHOD OF TEACHING

All the assignments mentioned in course content should have a thrust on developing sketching & rendering skills.

Assignments to be done on Sketchbooks / A2 sized sheets depending upon the content requirements.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS :-

1. Sketchbook by Milind Mulik
2. Pencil Sketching - Vyaktichitre by Pundalik Vaze
3. Water Colour by Milind Mulik
4. Colour Pencil by Rahul Deshpande & Gopal Nandurkar

WEBSITES:

www.gnomonworkshop.com

MODEL MAKING		
COURSE CODE	12023003	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 4 Studios TOTAL = 4 hr/week	Sessional (SS)	50
	Internal	25
	External	25
	Viva: Nil	
	Paper: Nil	
TOTAL MARKS	50	
TOTAL CREDITS	2	

COURSE OBJECTIVE:

To introduce the students to different tools, techniques and machines used for Model making and to develop their skills using different methods, techniques and materials.

COURSE CONTENT

1. The introduction to different materials like paper, foam board, file boards, Clay, Plaster of Paris etc which can be used to make models.
2. Understanding properties of materials suitable for different types of models.
3. Methods of drawing/transferring the drawings and techniques of cutting, pasting and finishing the study models.
4. Apply the skills to make scaled study models of using appropriate materials.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Models with each material explored have to be submitted.

METHOD OF INSTRUCTION

Demonstration of model making techniques, should be done by the teacher in the Studios/ Workshops.

Online lectures for some topics from NPTEL, Coursera should be organised.

GEOMETRIC CONSTRUCTION		
COURSE CODE	12023004	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lecture +4 studio TOTAL = 5 hrs/week	Sessional (SS)	100
	Internal	50
	External	50
	Viva: Nil	
Paper: Nil		
TOTAL MARKS	100	
TOTAL CREDITS	3	

COURSE OBJECTIVE:-

Understanding geometry of objects, shapes and forms by observing and analyzing.
Learning technical methods of drawing basic shapes and forms.

COURSE CONTENT:-

Unit 1: Introduction to methods of drawing through various instruments, and their handling techniques.

Unit 2: Introduction to standard fonts of letter and number.

Unit 3: Construction of shapes and objects starting from point, line and plane.

Unit 4: Construction of platonic shapes by circle and angle methods.

Unit 5: Orthographic projection by first angle and third angle method of basic shapes and forms.

Unit 6: Isometric view of objects.

Unit 7: Axonometric view of objects.

COURSE OUTCOME :

- The students will be able to understand the drawing tools and accessories and acquire knowledge of good drafting and lettering techniques;
- They will be able to comprehend and visualize geometrical forms through projection methods.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

Unit 1: Division of line, angle and circle. Types of lines and tonal variations (min. 2 sheets)

Unit 2: Lettering (min 2 sheets)

Unit 3: 2 sheets showing the presentation of given elements and their relation.

Unit 4: Drafting of basic geometric shapes (min 6 shapes like Triangle, square etc by each method.)

Unit 5: Orthographic projections of square, triangle, circle (prism & pyramid) (min 3 + 3 forms)

Unit 6, and Unit 7: Isometric, Axonometric views of at least square, triangle, circle-based prism and pyramid. (min 4+4 forms).

All assignments to be done on A2 size sheets.

METHOD OF INSTRUCTION

The units should be taught in the form of Lectures. The assignments should be given in the studios. During the instruction, 3D models should be kept for referencing and better understanding of unit 5, 6 and 7.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS :-

1. Form, Space and Order by Francis D. K. Ching
2. Designer Primer by Tom Porter and Sue Goodman
3. Precedents in Architecture by Roger H. Clark and Michael Pause
4. A J Metric Handbook
5. Structure in Nature – Strategy for design by Peter Pearce
6. Patterns in Nature by Peter Streens
7. Design Drawing by F.D.K. Ching
8. Perspective and Sciography by Shankar Mulik
9. Architectural Graphic Standard by Ramsey and Sleeper
10. Manual of Graphic Technology by Porter and Goodman
11. Lettering for Architects and Designers by M. Suther

BASIC SCIENCES		
COURSE CODE	12023005 (P)	12023006 (SS)
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 2 Lecture + 2 Studio TOTAL = 4 hrs/week	Sessional (SS)	100
	Internal	50
	External	50
	Viva: Nil	
	Paper (P) : 100	
TOTAL MARKS	200	
TOTAL CREDITS	Total = 3	

COURSE OBJECTIVE :-

The course is aimed towards providing basic and relevant scientific concepts required in Design discipline, to the students coming from different educational backgrounds. This knowledge will equip the students towards better understanding and linking of technical aspects and application based subjects in curriculum and profession.

COURSE CONTENT:

Understanding basic scientific concepts like:

Unit 1: Work, Energy & Power : Kinetic & Potential energy, Thrust & Pressure, Work done by Force, Energy & Power.

Unit 2. Motion:- Displacement, Acceleration, Uniform & non Uniform motion, Force & Motion

Unit 3. Gravitation

Unit 4. Current & Electricity :- Conductors & non conductors, electric circuits.

Unit 5. Sound :- Nature of sound & its propagation in various media, reflection of sound.

Unit 6. Light : Nature of light & its properties, is propagation in different mediums.

Unit 7. Materials :- Metals and non metals and their fundamental properties.

COURSE OUTCOME :

The student will be able to comprehend, understand and provide interventions in Design areas that need technical knowhow and addressal.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Journal writing - Minimum 1 assignment in each Unit explaining conceptual understanding, and examples on the topics mentioned.

METHOD OF INSTRUCTION

Basic instructions should be given in the Lecture format. Visits to Science labs, workshops should be organised for better understanding.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS:

1. Physics Made Simple: A Complete Introduction to the Basic Principles of This Fundamental Science by Christopher G. De. Pree
2. Physics I for Dummies (A Wiley brand) by Stevan Holzner.
3. NCERT- Science Textbooks, class VIII, class IX, for subjects of Chemistry, Physics, Algebra, Geometry etc.

WEBSITES: <https://www.khanacademy.org/science/physics>

HUMANITIES		
COURSE CODE	12023007	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lecture 2 Studios TOTAL = 3 hr/week	Sessional (SS)	50
	Internal	25
	External 2	25
	Viva: Nil	
Paper: Nil		
TOTAL MARKS	50	
TOTAL CREDITS	2	

COURSE OBJECTIVE:-

To understand human experience and the world we live in through the humanistic disciplines and outlook. To understand the relevance of the humanistic approach in Design education.

COURSE CONTENT:

Unit 1: Importance and relevance of studying Humanities in the field of Design.

Unit 2: Understanding the basic discipline such as Culture, Art , Language, Literature, Philosophy, History, Theology separately through examples in past and current contexts. To reason and to question and think critically about the developments, decisions with respect to above disciplines.

COURSE OUTCOME:

- Students will develop the ability to reason, to interpret the aspects related to living in past and present.
- Students will understand the interrelation amongst the discipline of Humanities.
- Students will develop the ability to relate these disciplines with the field of Design.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Unit 1: One or two assignments, in the written format with sketches, images etc.

Unit 2: One written assignment supported by sketches, for each discipline of Humanities, showcasing the examples across the world. Hands on exercises/ model making exercises shall be preferred for deep and holistic understanding of Art types, culture etc.

METHOD OF INSTRUCTION

The units of Language, Literature can be instructed by organising specific guest lectures to study their evolution. For the unit of Culture, a workshop/ hands on

exercise/visits to specific cultural events can be organised to understand the layers of culture. The other units of Art, Theology can be conducted through Lectures and Studio assignments.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS

1. Sociology by Schaefer Richard
2. Thinking Design by S. Balram
3. Design for the Real World by Victor Papanek
4. Glimpses of World History by Jawaharlal Nehru
5. The History Of World Art by Honour Hough & Fleming
6. Architecture Without Architects by Bernard Rudofsky
7. Ideas that Changed the World by Felipe Fernandez Armesto
8. Glimpses of India by J Furneaux
9. History of Indian Culture by D D Kosambi
10. The History of India by Romila Thapar.
11. A People's History of India 1: Prehistory by Irfan Habib
12. Cultural heritage of South Asia beyond recent perspective by Vasant Shinde

**DETAILED SYLLABUS OF B.DES. FIRST YEAR
FOUNDATION COURSE - SEMESTER II**

FUNDAMENTALS OF DESIGN II		
COURSE CODE	12023009	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 2 Lectures + 6 Studio TOTAL = 8 hrs/week	Sessional CIA	75
	SV	75
	Paper: Nil	
TOTAL MARKS	150 M	
TOTAL CREDITS	5	

OBJECTIVE:

Understanding Principles and Elements of Design to help students grasp the fundamentals of design as a basic creative activity. The students will learn about the basic elements of design through exercises aimed at experimentation and an advanced level of 3 dimensional understanding and visualization.

COURSE CONTENT:

Understanding the following fundamentals through 2D and 3D explorations:

Unit 1. Operations on 2d shapes and 3d forms by Union, difference, intersection, and subtraction application.

Unit 2. Understanding visual and physical balance through 2D and 3D compositions.

Unit 3. Spatial Relationship

Unit 4. Form development by manipulating vertices, edges, planes.

Unit 5. Colliding forms.

Unit 6. Introduction to Symbolism, Abstraction.

COURSE OUTCOME:

- The students will learn about the elements of design through exercises aimed at experimentation and an advanced level of 3 dimensional understanding and visualization.
- Students will be able to grasp the fundamentals of Design through various exercises and hands on explorations.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Unit 1- Minimum 1 assignment covering all the types of operations on sheet.
Minimum 1 model for each operation.

Unit 2- Minimum one assignment having 3 to 5 compositions with models to understand balance.

Unit 3- Assignment on understanding spatial composition through 3D model.

Unit 4- 3 to 5 explorations with models to understand form development.

Unit 5- Basic understanding of colliding objects through collection of images and their presentation in sketch format.

Unit 6- Two Assignments to understand symbolism and abstraction each.

METHOD OF INSTRUCTION

Each assignment should be explored through 2D and 3D compositions.
Online lectures for some topics from NPTEL, Coursera should be organised.

Unit 6 of symbolism and abstraction is for introducing students with the concept as a design tool. The intention is to instigate their thinking process to explore further.

RECOMMENDED READINGS:

1. Visual Thinking by Frank M. Young
2. The Art of Looking Sideways by Alan Fletcher
3. Signs and Symbols by Adrian Frutiger
4. Principles of Design through Photography by Deepak John Matthew
5. Form, Space and Order by Francis D.K. Ching
6. Basic Design and Anthropometry by Shirish Vasant Bapat
7. Lateral Thinking by Edward de Bono
8. Drawing, a Creative process by Francis D.K. Ching

Websites:

www.graphicdesignbasics.com

www.justcreative.com

https://en.wikipedia.org/wiki/Boolean_operations_on_polygons

DESIGN PROCESS		
COURSE CODE	120230010 (P)	120230011(SS)
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 2 Lectures + 4 Studio TOTAL = 6 hrs/week	Sessional CIA	50
	SV	50
	Paper (P): 100	
TOTAL MARKS	200	
TOTAL CREDITS	Total = 4	

COURSE OBJECTIVE:

To introduce the students to problem-solving methodology adopted in the field of Design. The students should be taught to approach complex problems and find their innovative solutions.

COURSE CONTENT:

Learning the following steps of a process of solving of a problem:

- Unit 1: Identification of the problem,
- Unit 2: Understanding the problem, analysis of issues.
- Unit 3: Identifying necessary data, locate sources and do data collection and analysis.
- Unit 4: Identifying appropriate Case Studies and analysis of the same.
- Unit 5: Brainstorming: drawing parallels of a particular situation.
- Unit 6: Formulation of the design brief, refinement to an appropriate level.

COURSE OUTCOME:

Students will be able to identify the opportunity in terms of Design, define the problem and develop the solutions for the same.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Minimum 1 assignment related to all the Units.

1. Minimum two assignments to observe and document activities through sketching.
2. Minimum two assignments to observe and document activities through photo documentation and video documentation.
3. Minimum two assignments on activities like mind mapping, brainstorming, etc and analysing the same.
4. One assignment to define Design Brief.

METHOD OF INSTRUCTION

Generic design process should be initially introduced to make the students understand about the terms, techniques, methods in the Design field.

Discipline wise working of assignments, can be done from Unit 1 to Unit 6.

Design Process adopted by masters shall be identified and discussed in class.

Case Studies methodology should be demonstrated.

Teaching methodology must include Site visits wherever required and its documentation as per assignment.

RECOMMENDED READINGS:

1. Design Paradigms: A Sourcebook for Creative Visualization by Warren K. Wake
2. How Things Work by Roger Jean Segalat
3. People, Places – Design Guidelines by Clare, Cooper, Marcus and Carolyn Francis
4. Inside the Bauhaus by D.Spath
5. Thinking Design- S.Balaram
6. Design and Environment –Vyas
7. Various Articles by M. P. Ranjan
8. Various Articles by Athwankar

FREE HAND DRAWING & VISUALISATION		
COURSE CODE	12023012	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 2 Lectures + 6 Studio TOTAL = 8 hrs/week	Sessional (SS)	150
	Internal	75
	External	75
TOTAL MARKS	150	
TOTAL CREDITS	5	

COURSE OBJECTIVE :-

To introduce students to fundamental techniques of Design sketching and visualisation. To enhance their observation, sketching and rendering skills through exercises and help them develop the language of design.

COURSE CONTENT:

Unit 1

Introduction to Design sketching

Freehand linear perspective drawings of simple or complex objects, and interior spaces.

Unit 2

Sketching based on observation.

In door & Out- door sketching.

Visits to particular environments to enhance the learning of spaces, objects, , volumes, scales, proportions, experiences as a step towards visualisation.

Unit 3

Sketching based on imagination of spaces, objects, products with respect to theme or thought, story, concept etc.

Unit 4

Advanced rendering techniques using mediums like charcoal, graphite and watercolour etc.

Unit 5

Introduction to Digital sketching

COURSE OUTCOME

The course will enable students to effectively visualise and explain an idea through drawing language.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Unit 1: Minimum 2 assignments on Storyboarding & doodling,

Minimum 5 number of objects to cover the study of freehand linear perspective drawings, and 2 interior views.

Unit 2: Minimum five assignments based upon Sketching from observation.

At least two assignments related to In-door & Out- door sketching.

Unit 3: Minimum five assignments based upon Sketching from imagination.

Unit 4: At least five assignments related to advanced rendering techniques.

Unit 5: At least two assignments related to digital sketching.

METHOD OF INSTRUCTION

All the assignments mentioned in course content should have a thrust on sketching & rendering skills.

Assignments to be done on Sketchbooks / A2 sized sheets depending upon the content requirements.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS :-

1. Learning Curves by various authors
2. Perspective Handbook by Joseph G. Amelio
3. I Draw Cars by Syd Mead
4. Century II by Syd Mead

ANALYTICAL DRAWING		
COURSE CODE	12023013	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lecture +4 studio TOTAL = 5 hrs/week	Sessional (SS)	50
	Internal	25
	External	25
	Paper: Nil	
TOTAL MARKS	100	
TOTAL CREDITS	3	

COURSE OBJECTIVE:

Learning and understanding to draw complex objects by using techniques of orthographic projections and various operations.

COURSE CONTENT:

Understanding and learning:

Unit 1: Understanding of Scale and its importance, methods of enlargement and reduction of scale.

Unit 2: Learning surface development

Unit 3: Learning orthographic projection of complex objects.

Unit 4: Learning sections (longitudinal and cross) through orthographic projections and cut sections at various angles in plan and elevation.

Unit 5: Introduction to technical method of perspective drawing.

Unit 6: Construction of complex objects by applying various operations like bending, twisting, stretching etc.

COURSE OUTCOME:

- The students will be able to draw detailed line drawings of real or imaginary objects.
- The course will enhance visualization and perception skills.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Unit 1: Developing at least 2 uncommon scales, drafting one object in minimum 5 different scales (min 1 sheets)

Unit 2: Drawing and models of surface development of minimum 5 Prism & 5 Pyramids.

Unit 3: Orthographic projections 8 to 10 objects (min 4 sheets)

Unit 4: Cut sections in Plan & Elevation triangle, pentagon; circle (Prism & Pyramid) (min 3+3 objects for resp. PLAN & ELEVATION)

Unit 5: Min 2 sheets on perspective of object and spaces each done by one point and 2 point methods.

Unit 6: Drawing and Model making for showing the complexity of objects and operations done.

All assignments to be done on A-2 size sheets.

METHOD OF INSTRUCTION

The units should be instructed in the form of Lectures. The assignments should be given in the studios. During the instruction, 3D models should be kept for referencing and better understanding of unit 2, 3 and 4.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS :-

1. Form, Space and Order by Francis D. K. Ching
2. Designer Primer by Tom Porter and Sue Goodman
3. Precedents in Architecture by Roger H. Clark and Michael Pause
4. A J Metric Handbook
5. Structure in Nature – Strategy for design by Peter Pearce
6. Patterns in Nature by Peter Streens
7. Visual Studies – a Foundation for Artists and Designers by F.M. Young
8. Drawing – a Creative Process by F.D.K. Ching
9. Ways of Seeing by J. Berger
10. Technical drawing – Goetsch, Nelson, Chalk(Delmar publication)

ART APPRECIATION & APPRAISAL		
COURSE CODE	12023014	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lecture TOTAL = 1 hr/week	Sessional (SS)	50
	Internal	25
	External	25
	Viva: Nil	
Paper: Nil		
TOTAL MARKS	50	
TOTAL CREDITS	1	

COURSE OBJECTIVE:

To learn about the various mediums of art expression with respect to the historical and cultural contexts in which they were created.

To make students understand the differences and similarities between Art & Design, and to develop and acknowledge Art appreciation thereby.

COURSE CONTENT:

To experience and understand various art forms like painting, Sculpture, Cinema, music, architecture, dance, literature – popular and experimental theatre.

COURSE OUTCOME:

To stimulate their thinking process, and to develop their critical and innovative thinking ability.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

- One individual assignment each related to minimum 6 types of art forms.
- Two assignments about the relation between art and design.
- At least one assignment should be taken to experience art form.

METHOD OF INSTRUCTION

Specific Guest lectures to study the evolution of some of the Art mediums can be organised. Visits to Exhibitions, Museums, Art Galleries etc. can be arranged to give the students exposure of different mediums.

Online lectures for some topics from NPTEL, Coursera should be organised.

RECOMMENDED READINGS:-

1. Lust for Life by Irving Stone
2. Ways of Seeing by John Berger
3. How Art Made the World - a 5 episode series by BBC
4. Kora Canvas by Prabhakar Barve
5. Understanding Indian Classical Music – a series of 4 episodes by Music Today
6. Chitapat – Ek Kala by Vijay Dixit
7. Cinematic by Ganesh Matkari

ENVIRONMENTAL PERCEPTION		
COURSE CODE	12023015	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lectures +4 studio TOTAL = 5 hrs/week	Sessional (SS)	50
	Internal	25
	External	25
	Viva : Nil	
	Paper: Nil	
TOTAL MARKS	50 M	
TOTAL CREDITS	3	

COURSE OBJECTIVE :

To expose students to the environments which are diverse and essentially different from the environments in that they reside in. This is to develop their observation skills, independent thinking, sense of responsibility, and understanding space and culture through the study of people and place in rural or semi-rural areas

COURSE CONTENT :-

Observing and understanding cultural system, social system, lifestyle, occupation, traditional learning systems, infrastructure, governance and citizen participation, health systems, traditional products -skill sets and materials, gender awareness and issues, and identifying other issues pertaining to village system.

COURSE OUTCOME: -

- Students will have critical observations in terms of understanding the role and response of spaces, culture and people.
- To understand the connection between Society, environment and Design.
- Students will get exposure in terms of having a dialogue with people from different context and their perspectives.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK

Group work covering at least six to eight topics mentioned in course content. On site study of the aspects by way of interaction, sketching, photography and documentation.

METHOD OF INSTRUCTION

To stay or visit a place chosen for Documentation, at periodic intervals to study the above parameters.

Online lectures for some topics from NPTEL, Coursera, on Culture, Sociology, occupation Economy etc. should be organised.

RECOMMENDED READINGS:-

1. Small Is Beautiful by E. F.Schumacher
2. Everybody Loves a Good Drought by P.Sainath
3. Karyarat by Anil Awachat
4. Architecture without Architects by BernardRudofsky
- 5.You can save the Planet by RichHough