AC–6.8
ItemNo.-28/6/2024

As per NEP 2020

University of Mumbai

Bachelor of Design in Design

First Year Design (Semester I& II), Revised Course

(NEP-2020 Scheme) from Academic Year 2025-26

(Common for All Branches of Design)

A- U.G. Certificate in **Major Discipline of Design**
B- U.G. Diploma in **Major Discipline of Design**
C- B.Voc.in **Major Discipline of Design**
D- B.E.in **Major Discipline of Design**
E- B.E. (Hons.) in **Major Discipline of Design**
F- B.E. (Hons. With Research) in **Major Discipline of Design**

Under

FACULTYOFSCIENCE&TECHNOLOGY

Ref: GR dated 20th April, 2023 for Credit Structure of UG

(As per AICTE & NEP 2020 Guidelines with effect fromtheAcademicYear2025-26Progressively)

Preamble

To meet the challenge of ensuring excellence and NEP 2020 policy in Design education, the issue of quality needs to be addressed, debated, and taken forward systematically. Accreditation is the principal means of quality assurance in higher education. The major emphasis of the accreditation process is to measure the outcomes of the program that is being accredited. In line with this Faculty of Science and Technology (in particular Design) of the University of Mumbai has taken the lead in incorporating the philosophy of NEP 2020 education in the process of curriculum development.

Faculty resolved that course objectives and course outcomes are to be clearly defined for every course so that all faculty members in affiliated higher education institutes understand the depth and approach of the course to be taught, which will enhance the learner's learning process. NEP 2020 grading system enables a much-required shift in focus from teacher- centric to continuous-based learner-centric education since the workload estimated is based on the investment of time in learning and not in teaching. It also focuses on continuous evaluation which will enhance the quality of education. Credit assignment for courses is based on a15-week teaching-learning process for NEP2020, however, the content of courses is to be taught in12-13 weeks and the remaining 2-3 weeks are to be utilized for revision, tutorial, guest lectures, coverage of content beyond the syllabus, etc.

There was a concern that in the present system the first-year syllabus must not be heavily loaded to the learner and it is of utmost importance that the learner entering into the first year of Design course should feel at ease by lowering the burden of syllabus and credits. This is necessary for a learner to get accustomed to the new environment of a college and to create a bond between the teacher and the learner. The present curriculum will be implemented for the First Year of Design from the academic year 2025-26. Subsequently, this system will be carried forward for Second Year Design in the academic year 2026-27 and for Third Year and Final Year Design in the academic years 2027-28 and 2028-29, respectively.

Sd/-	**Sd/-**	**Sd/-**
Dr. Vaishali Khairnar	Dr. Deven Shah	Dr. Shivram Garje
Chairman, BOS,	Associate Dean	Dean
IT	Faculty of Science and Technology	Faculty of Science and Technology
University of Mumbai	University of Mumbai	University of Mumbai

Program Structure for First Year Design

UNIVERSITYOF MUMBAI
(NEP2020 With Effect from Academic Year 2025-2026)

Semester I

Course Code	Course Description	Teaching Scheme (Contact Hours)			Credit Assigned			
		Theory	Practical	Tutorial	Theory	Tutorial	Practical	Total Credits
BSC101	Fundamentals of Design-I	2	--	1	2	1	--	3
BSC102	Materials and Processes -I	2	--	-	2	-	--	2
BSC103	History of Art and Design	2	-	-	2	-	-	2
ESC101	Digital Methods-I	2	-	-	2	-	-	2
ESC102	Art Appreciation	3	--	-	3	-	--	3
BSL101	Fundamentals of Design-I Lab	-	1	-	-	-	0.5	0.5
BSL102	Digital Methods-I Lab	-	1	-	-	-	0.5	0.5
ESL101	Design sketching skills Lab	-	2	-	-	-	1	1
ESL102	Craft Design Studio	--	2	-	--	-	1	1
AEC101	Professional Communication and Ethics	2	--	-	2	-	--	2
AEL101	Professional Communication and Ethics	--	2		--	--	1	1
VSEC101	Design Workshop	-	2	-	-	-	1	1
VSEC102	Computer Applications	-	2*+2	-	-	-	2	2
CC101	Induction cum Universal Human Values	2#	-	-	2	-	--	2
Total		**15**	**14**	**1**	**15**	**01**	**07**	**23**

*Two hours of practical class t be conducted for full class as demo/discussion.

#Course evaluation is activity-based which may be an individual or group of four students.

Theory / Tutorial 1 credit for 1 hour and Practical 1 credit for 2 hours.

Semester I

Course Code	Course Description	Examination scheme							
		Internal Assessment Test (IAT)			End Sem. Exam Marks	End Sem. Exam Duration (Hrs)	Term Work (Tw)	Oral & Pract.	Total
		IAT-I	IAT-II	Total (IAT-I)+ IAT-II)					
BSC101	Fundamentals of Design-I	20	20	40	60	02	25	--	125
BSC102	Materials and Processes -I	15	15	30	45	1.5	--	--	75
BSC103	History of Art and Design	15	15	30	45	1.5	--	--	75
ESC101	Digitals Methods-I	20	20	40	60	02	--	--	100
ESC102	Art Appreciation	20	20	40	60	02	--	--	100
BSL101	Fundamentals of Design-I Lab	--	--	--	--	--	25	--	25
BSL102	Digitals Methods-I Lab	--	--	--	--	--	25	--	25
ESL101	Design sketching skills Lab	--	--	--	--	--	25	25	50
ESL102	Craft Design Studio	--	--	--	--	--	25	25	50
AEC101	Professional and Communication Ethics	15	15	30	45	1.5	--	--	75
AEL101	Professional and Communication Ethics	--	--	--	--	--	25	--	25
VSEC101	Design Workshop	--	--	--	--	--	25	--	25
VSEC102	Computer Applications	--	--	--	--	--	25	25	50
CC101	Induction cum Universal Human Values	--	--	--	--	--	-	--	-
Total		**105**	**105**	**210**	**315**	**10.5**	**200**	**75**	**800**

Program Structure for First Year Design

UNIVERSITYOF MUMBAI
(NEP2020WithEffectfromAcademic Year2025-2026)

Semester II

Course Code	Course Description	Teaching Scheme (Contact Hours)			Credit Assigned			
		Theory	Practical	Tutorial	Theory	Tutorial	Practical	Total Credits
BSC201	Fundamentals of Design-II	2	-	1	2	1	--	3
BSC202	Materials and Processes -II	2	-	-	2	-	--	2
BSC203	Typography Fundamentals	2	-	-	2	-	--	2
ESC201	Digitals Methods-II	3	-	-	3	-	--	3
PCC201	Program Core Course	2	-	-	2	-	--	2
BSL201	Fundamentals of Design-II Lab	-	1	-	-	-	0.5	0.5
BSL202	Digitals Methods-II Lab	-	1	-	-	-	0.5	0.5
ESL201	Rendering and Illustration Lab	-	2	--	-	-	1	1
PCL201	Program Core Lab	-	2	-	-	-	1	1
CC201	Social Science & Community Services	-	2*+2	-	-	-	2	2
IKS201	Indian Knowledge System	-	2*+2	-	-	-	2	2
VSEC201	Social Media Lab	-	2	-	-	-	1	1
VSEC202	Design Studio	-	2*+2	-	-	-	2	2
Total		**11**	**20**	**01**	**11**	**01**	**10**	**22**

*Two hours of practical class to be conducted for full class as demo/discussion.

#Course evaluation is activity-based which may be individual or group of Two to four students.

Theory / Tutorial 1 credit for 1 hour and Practical 1 credit for 2 hours.

Semester II

Course Code	Course Description	Examination scheme							
		Internal Assessment Test (IAT)			End Sem. Exam Marks	End Sem. Exam Duration (Hrs)	Term Work (Tw)	Oral & Pract.	Total
		IAT-I	IAT-II	Total (IAT-I)+ IAT-II)					
BSC201	Fundamentals of Design-II	20	20	40	60	02	25	--	125
BSC202	Materials and Processes -II	15	15	30	45	1.5	--	--	75
BSC203	Typography Fundamentals	15	15	30	45	1.5	--	--	75
ESC201	Digitals Methods-II	20	20	40	60	02	--	--	100
PCC201	Program Core Course	20	20	40	60	02	--	--	100
BSL201	Fundamentals of Design-II Lab	--	--	--	--	--	25	--	25
BSL202	Digitals Methods-II Lab	--	--	--	--	--	25	--	25
ESL201	Rendering and Illustration Lab	--	--	--	--	--	25	25	50
PCL201	Program Core Lab	--	--	--	--	--	25	25	50
CC201	Social Science & Community Services	--	--	--	--	--	25	--	25
IKS201	Indian Knowledge System	--	--	--	--	--	25	--	25
VSEC201	Social Media Lab	--	--	--	--	--	25	--	25
VSEC202	Design Studio	--	--	--	--	--	25	25	50
Total		**90**	**90**	**180**	**270**	**09**	**225**	**75**	**750**

Program Core Course

PCC201	Name of Program as per Cluster	Name of Program Core Course
PCC201	Bachelor of Design in Design and Bachelor of Design in Industrial Design	**Overview of Design Process**

Program Core Lab

PCL201	Name of Program as per Cluster	Name of Program Core Course
PCL201	Bachelor of Design in Design and Bachelor of Design in Industrial Design	**Overview of Design Process**

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSC101	Fundamentals of Design-I	02	-	01	02	-	01	03

Course Code	Course Name	Theory			End Sem Exam	Exam Duration (In Hrs.)	Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)							
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSC101	Fundamentals of Design-I	20	20	40	60	2	25	--	125

Course Objectives:

Students will be able to

1. Learn The Elements and Principles of Art and Design
2. Understand The concepts of Color Theory
3. Identify and explain the success of the elements and principles of art and design within a composition.
4. Define how the elements of art are used to create the principles of design.
5. Define how the principles combine the elements to create an aesthetic placement of ideas that will produce a good design.
6. Recognize, select, use, and care for the appropriate tools and techniques for production and apply and control the medium of choice for production.

Course Outcomes:

1. Develop an understanding of various Elements of design
2. Develop an understanding of various Principles of Design
3. Develop an understanding of the world of colours and emotional connect with human perception

4. Develop an unbiased view of the phenomena around them and develop a sense of curiosity, empathy.
5. Develop awareness of various senses and learn ways to sharpen them to perceive the world around us with a new perspective
6. Understand typography

DETAILED SYLLABUS:

Sr. No	Module	Detailed Content	Hours	CO Mapping
I	Introduction to Design Principles	What is design, Types of design, Design basics, Design basics terminology Elements of design Definition and importance of design. Basic elements of design: Line, shape, form, space, color, texture, and value. Principles of design: Balance, contrast, emphasis, movement, pattern, rhythm, and unity. Hands-on exercises: Creating compositions using basic design principles.	**4**	**CO1**
II	Understanding Colour Theory	Color wheel: Primary, secondary, and tertiary colors. Color harmony and contrast. Psychological and emotional impact of colors. Practical exercises: Creating colour palettes and thematic mood boards.	**4**	**CO2**
III	Forms and Structures	Exploration of 2D and 3D forms. Geometric vs. organic shapes. The role of proportion and scale in design. Studio exercises: Building models using basic materials (paper, clay, or cardboard).	**4**	**CO3**
IV	Visual Perception and Composition	The Gestalt principles of design. Understanding visual hierarchy and spatial relationships.	**4**	**CO4**

		Composition techniques in design. Activities: Designing layouts for posters or digital interfaces.		
V	Introduction to Typography	Basics of typography: Typefaces, fonts, and classifications. Anatomy of type and its role in design. Importance of readability and legibility. Exercises: Designing typographic posters and exploring font pairings.	**5**	**CO5**
VI	Visual Sense	Recognize ways of perceiving the world through visual, auditory, touch, smell, taste and visual senses and develop skills to hone them through various exercises in studio. Develop methods and create experiences to hone these senses in the studio Texture, creative Compositions Different type of texture-visual Texture, Tactile Texture; Natural &Artificial Textures, Techniques of creating textures, Balance, Proportion, Rhythm, Emphasis, Unity	**5**	**CO6**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

1. "Design Basics" by David A. Lauer and Stephen Pentak – Wadsworth Publishing.
2. "Interaction of Color" by Josef Albers – Yale University Press.
3. "Principles of Form and Design" by Wucius Wong – Wiley.

4. "The Elements of Graphic Design" by Alex W. White – Allworth Press.

5. "Typography Essentials: 100 Design Principles for Working with Type" by Ina Saltz – Rockport Publishers.

6. "Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students" by Ellen Lupton – Princeton Architectural Press.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSC102	Materials and Processes -I	02	-	-	02	-	-	02

Course Code	Course Name	Theory					Term work	Pract. / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSC102	Materials and Processes -I	15	15	30	45	1.5	--	--	75

Course Objectives:

Students will be able to

1 To understand the nature and qualities of metals.
2 To understand the various processing techniques for achieving desired form and color for newly designed products.
3 To give the fundamental knowledge of metal finishes and understand various properties of metals.
4 To understand the nature and qualities of non-metals.
5 To understand the various processing techniques for achieving desired form and color for newly designed products.
6 To give the fundamental knowledge of non-metal finishes and understand various properties of non-metals.

Course Outcomes-The learners will be able to:

1. Develop an understanding of materials through sensory perception and methods to manipulate them.
2. Develop an understanding of Introduction to different planar materials.
3. Develop an understanding of Introduction to principles of Scale, Ratio and Proportion.
4. Develop an understanding of Introduction to Paper Pulp and objects.
5. Develop an understanding of PAPER, CLAY and FABRICS as material and its inherent properties.
6. Develop an understanding of Properties and Technological aspect of Metallic Materials.

DETAILED SYLLABUS:

Sr. No	Module	Detailed Content	Hours	CO
I	Introduction to basic modelling materials	Introduction to basic modelling materials such as clay, fibre, grass etc.	**4**	**CO1**
II	Introduction to different planar materials	Introduction to different planar materials such as paper, cardboard, polystyrene sheets and their properties. Processes: Folding, Bending, Rolling, Cutting, Shaping, Joining, Carving, Sanding, Gluing, Quilling, Scoring, Moulding, Finishing etc. Introduction to relevant hand tools and techniques.	**5**	**CO2**
III	Introduction to principles of Scale, Ratio and Proportion	Introduction to principles of Scale, Ratio and Proportion Introduction to model-making techniques using methods of construction to understand scaling.	**4**	**C03**
IV	Introduction to Paper Pulp and objects	Introduction to Paper Pulp and objects made from it. Manipulation of paper pulp through techniques that can lead to surface and volume generation to explore properties and create forms. Understanding factors like Absorbency, Strength, Colour, Opacity & Texture-based properties.	**5**	**CO4**
V	Natural materials and processes	Properties and Technological aspect of Natural Materials and their manufacturing processes. Conversion of these materials using diverse range of manufacturing processes.	**4**	**CO5**
VI	Properties and Technological aspect of Metallic Materials	Properties and Technological aspect of Metallic Materials and their manufacturing processes. Conversion of these materials using diverse range of manufacturing processes. Case study: clay workshops Case study: fabric studies	**4**	**CO6**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

Reading list

- Allen, Jon. *Making Geometry: Exploring Three-Dimensional Forms*.
- Edinburgh: FlorisBooks. 2012
- Heyenga, Laura,Ryan, Rob, Avella, Natalie. *PaperCutting Book:*
- *Contemporary Artists, Timeless Craft.* SanFrancisco: Chronicle Books. 2011
- Jackson, Paul. *CutandFold Techniques For Promotional Materials.*
- London:Lawrence King Publication.2013
- Karssem, Arjan, Otte, Bernard. *Model Making Conceive, Create And*
- *Convince.* Thamesand Hudson.2014
- Kawamura, Miyuki. *Polyhedron Origami for Beginners*.
- JapanesePublications.2002
- Ramsbury:CrowoodPress.2008
- Sympsionics Design. *Building Platonic Solids: How to Construct Sturdy*
- *Platonic Solids from Paper or Cardboard and Draw Platonic Solid*
- *Templates With a Ruler and Compass*. London: Deltaspektri. 2015.

Viewing list

- Craft Hacks: Scoring Paper with no Fancy Tools!
- https://www.youtube.com/watch?v=ayktKwkkITYMoulded pulp packaging prototype
- https://www.youtube.com/watch?v=T0GGPoke4KcOnline resources

Rapid Physical Models: A New Phase in Industrial Design

- https://www.intechopen.com/chapters/69886

Suggested case List

1. Study of pulp-based packaging of eggs
2. Study of cardboard packing of a light bulb
3. Study of cardboard models with moving parts- such as humans keleton, bridge etc.

Suggested Field Visits

1. Visit to paper-making unit at Gandhi Ashram Visit to a potter
2. Visit to kite-making unit
3. Visit to cardboard box-making unit

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSC103	History of Art and Design	02	-	-	02	-	-	02

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSC103	History of Art and Design	15	15	30	45	1.5	--	--	75

Course Objectives:

To introduce the notion of Design as it evolved through the ages, from pre-historic times to a discipline in its own right.

Course Outcomes:

Sr. No.	Course Outcomes
The course aims:	
1	To understand Ancient and Classical Art.
2	To study Medieval and Renaissance Art
3	To understand Baroque Art: Dramatic expressions
4	To understand Modern Art Movements
5	To understand Contemporary Art and Design
6	To study current Trends

DETAILEDSYLLABUS:

Sr. No.	Module	Detailed Content	Hours	CO Mapping
I	Ancient and Classical Art	Overview of Prehistoric Art: Cave paintings, petroglyphs, and early sculptures. Ancient Civilizations: Art and design in Mesopotamia,	4	CO1

		Egypt, Indus Valley, and China. Classical Antiquity: Greek and Roman art, architecture, and their enduring influence		
II	Medieval and Renaissance Art	Early Christian and Byzantine Art: Iconography, mosaics, and architectural innovations Medieval Art: Romanesque and Gothic styles in Europe. Renaissance Art: Key artists, techniques, and the revival of classical ideals in Italy and Northern Europe.	5	CO2
III	Baroque Art: Dramatic expressions	Baroque to Romanticism, grandeur, and the works of Caravaggio, Bernini, and Rubens. Rococo: Lightness, elegance, and decorative arts in the 18th century. Neoclassicism and Romanticism: Reaction to the Rococo, focus on classical revival and emotional expression	4	CO3
IV	Modern Art Movements	19th Century: Realism, Impressionism, and Post Impressionism. Early 20th Century: Cubism, Fauvism, Expressionism, and the impact of World Wars on art. Mid to Late 20th Century: Abstract Expressionism, Pop Art, Minimalism, and Conceptual Art.	5	CO4
V	Contemporary Art and Design	Late 20th to 21st Century: Digital art, new media, and the global art scene. Postmodernism: Deconstruction, appropriation, and diverse cultural influences.	4	CO5
VI	Current Trends	Current Trends: Sustainability in design, the influence of technology, and interdisciplinary practices in contemporary art and design.	4	CO6

Online References:

Sr. No.	**Website Name**
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

1. E.H. Gombrich, “The Story of Art”, Phaidon Publishers, UK, 1995.
2. H. Harvard Arnason and Peter Kalb, “History of Modern Art”, Prentice Hall Publishers,
3. New Jersey, USA, 2003.
4. Giorgio Vasari, George Bull “The Lives of the Artists (Oxford World's Classics)”,
5. Penguin Classics, UK, 1987.
6. Yve-Alain Bois, “Art Since 1900”, Thames & Hudson Ltd, UK, 2016.
7. Pratima Sheh “Dictionary of Indian Art and Artists by Pratima Sheh”, Grantha Corporation, India, 2007

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
ESC101	Digital Methods-I	02	-	-	02	-	-	02

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
ESC101	Digital Methods-I	20	20	40	60	2	--	--	100

Course objectives:

Students will be able to

1. Learn basics of photography techniques.
2. Learn basics of videography techniques.
3. Understand image processing
4. Understand image processing
5. Create a video project
6. To learn video editing techniques

Course Outcomes:

Sr. No.	Course Outcomes
The course aims to expose students to:	
1	To develop understanding of digital photography and videography
2	To create framing/composing pictures
3	To study narrative through image
4	To understand Videography basics
5	To create image capturing
6	To create project on Videography

DETAILED SYLLABUS:

Sr. No.	Module	**Detailed Content**	**Hours**	**CO Mapping**
I	Introduction to photography and videography	Brief history of photography and videography, the moving image, cameras and lenses for these, aspects of media storage	**4**	**CO1**
II	Basics of image capturing and visual effects	Basics of image capturing and visual effects. Subject, texture, light (exposure and metering), form, movement, space, depth of field etc.	**4**	**CO2**
III	Composition in photography	Composition in photography. Balance in an image, camera controls for these, and photography exercises; re-touching images	**5**	**CO3**
IV	Composition in videography	Composition in videography. creating and editing videos digitally combined with audio effects,	**5**	**CO4**
V	Creating a Video	creating a digital film for a video CV of oneself and of a design	**4**	**CO5**
VI	Group project	Undertaking group project activities	**4**	**CO6**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

1. "The Beginner's Photography Guide", 2nd Edition, DK, 2016.
2. London, B., Upton, J., & Stone J. (2010). Photography (10th ed.). Upper Saddle River, NY: Prentice Hall.
3. Digital Filmmaking for Beginners A Practical Guide to Video Production Apr 23, 2012, Michael K. Hughes, Publisher: McGraw-Hill Education TAB; 1 edition (April 23, 2012), ISBN-13: 978-0071791366
4. Videomaker. (2007). The Videomaker Guide to Video Production (4th ed.). Burlington, MA: Focal Press.
5. The Art of Photography
6. Ciaglia, Joseph, *Absolute Beginner's Guide to Digital Photography*
7. DSLR Photography for Beginners
8. Mark Sawicki, *Filming the Fantastic: A Guide to Visual Effects Cinematography*
9. Stephen M. Hockman, *Mastering Composition in Digital Photography*
10. Sean Cubitt, *Videography: Video Media as Art and Culture*

Assessment:

Internal Assessment (IA) for 20 marks:

- IA will consist of Two Compulsory Internal Assessment Tests. Approximately 40% to 50% of syllabus content must be covered in First IA Test and remaining 40% to 50% of syllabus content must be covered in Second IA Test

Question paper format

- Question Paper will comprise of a total of **six questions each carrying 20 marks.**
- Q.1 will be compulsory and should cover maximum contents of the syllabus
- **Remaining questions** will be **mixed in nature** (part (a) and part (b) of each question must be from different modules. For example, if Q.2 has part (a) from Module 3 then part (b) must be from any other Module randomly selected from all the modules)
- A total of **four questions** needs to be answered

Subject Code	Subject Name	Theory	Practical	Tutorial	Theory	Practical/Oral	Tutorial	Total
ESC102	**Art Appreciation**	**03**	**--**	**--**	**03**	**--**	**--**	**03**

Course Code	Course Name	Theory			End Sem Exam	Exam Duration (In Hrs.)	Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)							
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
ESC102	**Art Appreciation**	**20**	**20**	**40**	**60**	**2**	**--**	**--**	**100**

Course objectives:

Students will be able to

1. Learn art description
2. Analyse various forms of art
3. Understand aartistic Media Architecture Our World
4. Study context & meaning
5. Able to make judgement of art
6. Create a portfolio

Course Outcomes: Six Course outcomes (Based on Blooms Taxonomy)

1. To compare and contrast different methods, mediums, and materials artists use to create two- and three-dimensional works of visual art
2. To evaluate the effect of society and cultures on a work of art
3. To analyze different art of different periods
4. To express own art work after detail study arts of different periods
5. To visualize the key elements of an art of particular period.
6. To make portfolio of art

Prerequisite: Nil

Sr. No.	Module	Detailed Content	Hours	CO Mapping
0	Prerequisite	Nil	1	CO1
I	Art Description	A work of art from an objective point of view – its physical attributes and formal construction	4	CO2
II	Analysis of art	Analysis: Historical, religious, or environmental information that surrounds a particular work of art that helps to understand the work's meaning	4	CO3
III	Context &meaning	: A statement of the work's content; a message or narrative expressed by the subject matter • Defining Art • Who Makes Art – Process and Training? • How Art Speaks – Finding Meaning • How Art Works – The Elements and Principles of Visual Language	5	CO4
IV	Artistic Media Architecture Our World –	Nature, the Body, Identity, Sexuality, Politics, and Power Other Worlds – Myths, Dreams, and Spirituality Art in Time and Place – The Western World	4	CO5
V	Judgment	A critical point of view about a work of art concerning its aesthetic or cultural value	4	CO5
VI	Portfolio	Portfolio on different form of Art –Contempary or modern	4	CO6

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books:

1. Elke Linda Buchholz, Susanne Kaeppele, et al. |Art: A World History , Nov 1, 2007
2. Carolyn Schlam: The Joy of Art

References:

1. Itten, Johannes; The Art of Color: The Subjective Experience and Objective Rationale of Color, Wiley Publications,1997
2. Hauffe, Thomas; Design, Publisher: Barron’s Educational Series, 1996

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSL101	Fundamentals of Design-I Lab	-	1	-	-	0.5	-	0.5

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSL101	Fundamentals of Design-I Lab	-	-	-	--	--	25	--	25

Lab objectives:

Students will be able to

1. Learn The Elements and Principles of Art and Design
2. Understand The concepts of Color Theory
3. Identify and explain the success of the elements and principles of art and design within a composition.
4. Define how the elements of art are used to create the principles of design.
5. Define how the principles combine the elements to create an aesthetic placement of ideas that will produce a good design.
6. Recognize, select, use, and care for the appropriate tools and techniques for production and apply and control the medium of choice for production.

Lab Outcomes:

1) Develop an understanding of various Elements of design
2) Develop an understanding of various Principles of Design
3) Develop an understanding of the world of colours and emotional connect with human perception
4) Develop an unbiased view of the phenomena around them and develop a sense of curiosity, empathy.

5) Develop awareness of various senses and learn ways to sharpen them to perceive the world around us with a new perspective
6) Understand typography
7)

Prerequisite: Nil

DETAILED SYLLABUS: Syllabus related Lab experiment must be considered and mapped with Blooms Taxonomy. Total six modules for each subject and total 24 hours to be distributed among six modules.

Sr. No.	Module	Detailed Content	Hours	LO Mapping
0	Prerequisite	Basic drawing	1	-
I	Introduction to Design Principles	Create a 2D composition using at least five design elements (line, shape, color, texture, etc.) and three principles of design (balance, contrast, emphasis, etc.). Analyze two artworks or designs and identify the elements and principles of design used.	2	LO1
II	Understanding Color Theory	Design a handmade color wheel including primary, secondary, and tertiary colors. Explore and label complementary and analogous color schemes on the wheel Create a thematic mood board using a specific color harmony (e.g., monochromatic, triadic).	2	LO2
III	Forms and Structures	Create a 3D form using paper to explore geometric or organic shapes. Include photos of your sculpture from three different angles and a 200-word reflection Build two models of the same object, varying only in scale.	2	LO3
IV	Visual Perception and Composition	Design a poster incorporating at least three Gestalt principles (e.g., proximity, similarity, closure).	2	LO4
V	Introduction to Typography	Create a typographic poster using only text (no images or illustrations). Experiment with font styles, sizes, and spacing to create visual interest	2	LO5
VI	Font Pairing Exercise	Design a product label or advertisement using two contrasting fonts.	2	LO6

Text Books:

1. "Design Basics" by David A. Lauer and Stephen Pentak – Wadsworth Publishing.
2. "Interaction of Color" by Josef Albers – Yale University Press.
3. "Principles of Form and Design" by Wucius Wong – Wiley.
4. "The Elements of Graphic Design" by Alex W. White – Allworth Press.
5. "Typography Essentials: 100 Design Principles for Working with Type" by Ina Saltz – Rockport Publishers.
6. "Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students" by Ellen Lupton – Princeton Architectural Press.

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

List of Experiments;

Experiment Criteria

1. Creativity and Originality: Innovative use of design principles in assignments.
2. Execution: Precision, craftsmanship, and attention to detail in practical work.
3. Conceptual Clarity: Demonstration of advanced understanding through project narratives and presentations.
4. Integration: Application of Fundamentals of Design-I concepts in advanced tasks.

Instructions for Experiment:

- Assignments may be completed using traditional media (paper, paint, and materials.
- Each assignment will be evaluated based on creativity, understanding of concepts, and execution quality.
- Deadlines for each assignment will align with the corresponding module completion.

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work (limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Assessment:
Distribution of marks for term work
Laboratory work 20 Marks
Attendance 05 Marks

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSL102	Digital Methods -I Lab	-	1	-	-	0.5	-	0.5

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSL102	Digital Methods -I Lab	-	-	-	--	--	25	--	25

Lab objectives:

1. Learn basics of photography techniques.
2. Learn basics of videography techniques.
3. Understand image processing
4. Understand image processing
5. Create a video project
6. To learn video editing techniques

Lab Outcomes:

1	To develop understanding of digital photography and videography
2	To create framing/composing pictures
3	To study narrative through image
4	To understand Videography basics
5	To create image capturing
6	To create project on Videography

DETAILED SYLLABUS

Sr. No.	Module	Detailed Content	Hours	LO Mapping
I	Experiment on introduction to photography and videography	Brief history of photography and videography, the moving image, cameras and lenses for these, aspects of media storage	**2**	LO1
II	Experiment on basics of image capturing and visual effects	Basics of image capturing and visual effects. Subject, texture, light (exposure and metering), form, movement, space, depth of field etc.	**2**	LO2
III	Experiment on composition in photography	Composition in photography. Balance in an image, camera controls for these, and photography exercises; re-touching images	**2**	LO3
IV	Experiment on composition in videography	Composition in videography. creating and editing videos digitally combined with audio effects,	**3**	LO4
V	Creating a digital film	creating a digital film for a video CV of oneself and of a design	**2**	LO5
VI	Experiment on group project	Undertaking group project activities	**2**	LO6

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work(limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Assessment:
Distribution of marks for term work
Laboratory work 20 Marks
Attendance 05 Marks

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

1. "The Beginner's Photography Guide", 2nd Edition, DK, 2016.
2. London, B., Upton, J., & Stone J. (2010). Photography (10th ed.). Upper Saddle River, NY: Prentice Hall.
3. Digital Filmmaking for Beginners A Practical Guide to Video Production Apr 23, 2012, Michael K. Hughes, Publisher: McGraw-Hill Education TAB; 1 edition (April 23, 2012), ISBN-13: 978-0071791366
4. Videomaker. (2007). The Videomaker Guide to Video Production (4th ed.). Burlington, MA: Focal Press.
5. The Art of Photography
6. Ciaglia, Joseph, *Absolute Beginner's Guide to Digital Photography*
7. DSLR Photography for Beginners
8. Mark Sawicki, *Filming the Fantastic: A Guide to Visual Effects Cinematography*
9. Stephen M. Hockman, *Mastering Composition in Digital Photography*
10. Sean Cubitt, *Videography: Video Media as Art and Culture*

		Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Practical	Tutorial	Theory	Practical & Oral	Tutorial	Total
ESL101	**Design sketching skills Lab**	**--**	**2**	**--**	**--**	**1**	**--**	**01**

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
ESL101	**Design sketching skills Lab**	**-**	**-**	**-**	**--**	**--**	**25**	**25**	**50**

Lab objectives:

Students will be able to

1. Understand pencil exercises
2. Exercises of object drawings
3. Sketch indoor objects
4. Sketch outdoor objects
5. Sketch human form
6. Understand other medium of sketching

Lab Outcomes: Six Lab outcomes (Based on Blooms Taxonomy)

1) Develop an understanding of various marking devices and surfaces and learn to draw freehand through observation and using motor skills
2) Develop skills to understand the size, scale, and proportion, surface textures through drawing techniques of line, shapes and volume
3) Develop techniques of various methods of visual representation such as longhand drawing, isometric drawings, perspective drawing.
4) Illustrate the ability of design idea through 2d and 3d visuals
5) To observe the environment and draw exterior and interior spaces
6) To learn other forms of sketching

Prerequisite:

DETAILED SYLLABUS: Syllabus related Lab experiment must be considered and mapped with Blooms Taxonomy. Total six modules for each subject and total 24 hours to be distributed among six modules.

Sr. No.	Module	Detailed Content	Hours	LO Mapping

0	Prerequisite	Basic drawing	1	-
I	Introduction to pencil exercises	The course introduces the fundamental techniques of concept sketches, design development sketches, presentation sketches, presentation renderings and architectural drawing and develops the appropriate skills for visualization and representation. How pencil to be used, different grades & tone –graphite, charcoal etc, line-straight, curve, long hand. Pencil texture on different papers & surfaces.	4	LO1
II	Exercises of object drawings	Basic geometric forms & shapes. Observation of objects in surroundings – details, texture, light & shadow	4	LO2
III	Sketching indoor objects	Still Life – Furniture, Equipment – Understanding Depth, light, shade, Shadow Etc	4	LO3
IV	Outdoor objects	Outdoor Sketching: Natural Forms/Built Forms. Understanding variety in Forms. Landscape drawing-natural objects.	4	LO4
V	Sketching human form	Anatomy and Expressions – Graphical Representations.	4	LO5
VI	Introduction to other medium of sketching	Charcoal Pencils, Chalk, pen Line, Negative space drawing CREATIVE DRAWING Creative Composition, Portraits, Critical Design, Geometrical composition Portfolio Making On Individual discipline aspect	4	LO6

Text Books:

1. Mick Maslen, Jack Southern Drawing Projects.
2. Eric Oloffson, Clara Sjolen: Design Sketching.
3. Koos Eisen Sketching: The Basics2.

References:

1. Powell, Dick; Design Rendering Techniques: A Guide to Drawing and Presenting Design Ideas, Publisher: North Light Books, 1996
2. Caplin, Steve; Banks, Adam; The Complete Guide to Digital Illustration, Publisher: Watson Guptill Publications, 2003
3. Buxton, Bill; Sketching User Experiences: Getting the Design Right and the Right Design (Interactive Technologies), Morgan Kaufmann, 2007

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

List of Experiments;

1. Assignment on introduction to pencil exercises
2. Assignment on exercises of object drawings

3. Assignment on sketching indoor objects
4. Assignment on outdoor objects
5. Assignment on sketching human form
6. Assignment on introduction to other medium of sketching

Assessment:

Distribution of marks for term work
Laboratory work 20 Marks
Attendance 05 Marks

ASSESSMENT:

End Semester Practical/Oral examination:

1. Each student will be given a small task of design/ Sketch/ Small activity based on syllabus, which will be assessed by pair of examiners during the oral examination.
2. Distribution of marks for practical-oral examination shall be as follows:
3. Evaluation of practical/oral examination to be done based on the performance of design task
4. Students work along with evaluation report to be preserved till the next examination

Design / Sketch/ Small activity Task: **15 marks**
Oral: **10 marks**

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work (limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

	Teaching Scheme (Contact Hours)	**Credits Assigned**

		Theory	Practical	Tutorial	Theory	Practical & Oral	Tutorial	Total
ESL102	**Craft Design Studio**	**--**	**2**	**--**	**--**	**01**	**--**	**01**

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
ESL102	**Craft studio**	**-**	**-**	**-**	**--**	**--**	**25**	**25**	**50**

Lab objectives:

Students will be able to

1. Effectively evaluate historical Background of Indian craft
2. Minutely comprehend types of craft
3. Explore current Scenario of Craft
4. Learn zone wise Introduction of craft
5. Learn factors influencing Craft
6. Efficiently create a Portfolio on Individual discipline aspect

Lab Outcomes: Six Lab outcomes (Based on Blooms Taxonomy)

1. Develop understanding of various Indian crafts.
2. Develop understanding of factors effecting crafts
3. Understand types of crafts
4. Know current Scenario of Craft
5. Understand factors influencing Craft
6. Create different crafts

Prerequisite: Indian tradition system

DETAILED SYLLABUS: Syllabus related Lab experiment must be considered and mapped with Blooms Taxonomy. total six module for each subject and total 24 hours to be distributed among six modules.

Sr. No.	Module	Detailed Content	Hours	LO Mapping
0	Prerequisite	Indian tradition system	1	-
I	Historical Background of Indian craft	Introduction to the basic concept in the evolution of crafts. Journey of various crafts over several decades	4	LO1

		and centuries.		
II	Zone wise Introduction of craft	North, South, East, West, Central & North-east	4	LO2
III	Types of craft	Metal craft, Wood craft, Leather craft, Paper craft, Textile craft, Stone craft, Pottery / Clay work, Terracotta work, Gems and stone, Grass craft, Bamboo craft, etc	5	LO3
IV	Current Scenario of Craft	Current situation of Craft in Domestic and International Market	4	LO4
V	Factors influencing Craft	Social, Economic, Technological, Psychological etc.	4	LO5
VI	Portfolio Making On Individual discipline aspect	Portfolio Making On Individual discipline aspect	4	LO6

Text Books:

Handicrafts of India – M.P.Ranjan, Aditi Ranjan

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

List of Experiments:

1. Assignment on historical Background of Indian craft
2. Assignment on zone wise crafts
3. Assignment on types of crafts
4. Assignment on latest trends in craft industry
5. Assignment on factor affecting crafts
6. Assignment on portfolio making

Assessment:
Distribution of marks for term work
Laboratory work 20 Marks
Attendance 05 Marks

ASSESSMENT:
End Semester Practical/Oral examination:
1. Each student will be given a small task of design/ Sketch/ Small activity based on syllabus, which will be assessed by pair of examiners during the oral examination.
2. Distribution of marks for practical-oral examination shall be as follows:

3. Evaluation of practical/oral examination to be done based on the performance of design task
4. Students work along with evaluation report to be preserved till the next examination

Design / Sketch/ Small activity Task: **15 marks**
Oral: **10 marks**

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work (limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
AEC101	Professional Communication and Ethics	02	-	-	02	-	-	02

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test (IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
AEC101	Professional Communication and Ethics	15	15	30	45	1.5	--	--	75

Rationale

This course has been designed to hone the communicative abilities of First Year Design students by providing them skill-based training on LSRW (Listening-Speaking-Reading-Writing) to prepare them for a career in the industry and for competitive exams pertaining to higher studies.

Course Objectives-The learners should be able to:
1. Effectively evaluate the dynamics of communication and navigate professional arenas
2. Competently acquire active listening skills by comprehending various types of Speech Acts
3. Critically analyze communication barriers, audience and purpose to speak proficiently

4. Minutely comprehend extensive texts, technical and non-technical, to execute relevant tasks
5. Efficiently organize and create purposeful technical writing for professional transaction
6. Successfully manage teams, by applying ethical standards to deliver synergistic solutions

Course Outcomes-The learners will be able to:

1. Evaluate the dynamics of communication and effectively navigate professional arenas
2. Acquire active listening skills by comprehending various types of Speech Acts
3. Analyze different communication barriers, audience and purpose, and speak proficiently
4. Comprehend extensive texts, technical and non-technical, to execute relevant tasks
5. Organize and create purposeful technical writing for professional transactions
6. Manage teams successfully, by applying ethical standards to deliver synergistic solutions

DETAILEDSYLLABUS:

Sr. No.	Name of Module	Detailed Content	Hours	CO Mapping
01	**Module 1- Fundamentals of Communication**	**1.1. Basic Concepts of Communication** • Definition, Objectives, Postulates **1.2. Process of Communication** • Stimulus, Sender, Encoding, Message, Medium, Channel, Receiver, Decoding, Feedback **1.3. Methods of Communication** • Verbal (*Written & Spoken*). • Non-verbal cues perceived through the five senses (*Visual, Auditory, Tactile, Olfactory, Gustatory*) • Non-verbal cues transmitted cues through (*The body, Voice, Space, Time, Silence*) **1.4. Barriers to Communication** • Mechanical, Physical, Semantic & Linguistic, Psychological, Socio-cultural **1.5. Organizational Communication** • Formal (*Upward, Downward, Horizontal*). • Informal(*Grapevine*)	**08**	**CO1**

02	**Module 2 - Developing Basic Listening Skills**	**2.1. Concepts of Active Listening** • Listening for Details • Listening for Gist • Listening for Inference **(*For details please refer to Lab. Syllabus*)** **2.2. Enhancing Listening Proficiency Using Language Labs or on Open Source Platforms**	**02**	**CO2**
03	**Module 3 - Developing Basic Speaking Skills**	**3.1. Conversational Activities- Monologues** • Introducing yourself, Introducing others, One-minute impromptus peeches, Scaffolded story telling **3.2. Conversational Activities- Dialogues** • Role plays on everyday interactions, Interviews (Find out if…), Information Gap Activities, Pictured descriptions and feedback, Situational conversations. **3.3. Conversational Activities - Pronunciation, Stress & Rhythm, Intonation** • Neutralisation of accent, Word stress, Rhythm & Pauses, Tonal variations/inflections ***(For details please refer to Lab. Syllabus)***	**02**	**CO3**

04	**Module 4 - Developing Basic Reading Skills**	**4.1. Verbal Aptitude** • Root Words, Meanings, Word Forms, Synonyms, Antonyms, Collocations, Prefixes, Suffixes at a similar difficulty level of entrance tests like **CAT/GRE/GMAT & proficiency tests like TOEFL/IELTS** **4.2. Grammar** • Identifying Common Errors (*Subject-verb agreement, Articles. Prepositions, Misplaced modifiers and Punctuations*) Redundancies, Idioms, Clichesata similar difficulty level of entrance tests Like **CAT/GRE/GMAT & proficiency tests like TOEFL/IELTS** **4.3. Techniques to Improve Reading Fluency and Comprehension** • Intensive Reading • Extensive Reading • Skimming • Scanning • SQ5RMethod*(Survey, Question, Reading, Recording, Recall, Review and Revise)* **4.4. Reading & Summarisation Skills** • Summarising text to Graphic Organisers (GO) and visa-versa. Venn diagrams, Radial Diagrams (*Mind-maps*), Tree Diagrams, Cyclic Diagrams, Flow Charts, Timelines, Matrix (*Tables*), Pyramids • Summarizing text in point form • Summarising text in one-sentence central idea	**02**	**CO4**
05	**Module 5 - Developing Basic Writing Skills**	**5.1. Coherence & Cohesion in Writing** • Basic Units of Writing (W*ords, Sentences, Paragraphs*) • Coherence (*Structure of written pieces, CSI Order of Organisation*) • Cohesive Devices (*Referencing, Repetition, Substitution, Ellipsis, Transition Signals*). • Structure of a Paragraph (*Topic Sentence, Supporting Ideas, Concluding Sentence*). **5.2. Seven Cs of Business Writing** • Completeness, Conciseness, Consideration, Concreteness, Clarity, Courtesy, Correctness.	**09**	**CO5**

		5.3. Format & Types of Formal Letters • Parts of a Formal Letter in **Complete Block Style** • Request/Permission Letter • Claim and Adjustment Letter • Sales Letter • E-mails **5.4. Writing User Instructions** • Styles of Instruction Presentation (*Impersonal, Indirect, Direct, Imperative*) • Describing general function/purpose of an object/process, • Drawing label led diagrams • Describing label led parts • Writing User Instructions • Writing Special Notices (*Note, Caution, Warning, Danger*) **5.5. Content Creation for Social Media and e-Commerce Platforms** • Blogs • Poetry • Key note speeches • Podcast titles • Landing pages • Social media posts • You Tube video description • Screenwriting/Script Writing ***(Ensure minimum 3 of these categories are covered in the form of competitions)***		
06	**Module 6 – Ethical and Managerial Skills for Engineers**	**6.1. Teambuilding** • Five stages of Team, (Forming, Storming, Norming, Performing and Adjourning) **6.2. Goal setting** • SMART goals – short term and long-term goals **6.3. Ethical Considerations for Professional Integrity** • Fairness and Honesty • Difference between Values and Ethics • Ethical principles • Ethical use of AI Tools • Plagiarism and copyright infringement	**03**	**CO6**

		• Ethical-dilemma case studies		

References:

1. Communication Skills by Sanjay Kumar & Pushp Lata
2. Business Communication with Writing Improvement Exercises .Hemphill, McCormick and Hemphill
3. Business Communication: Building Critical Skills by Locker, Kitty O.Kaczmarek, Stephen Kyo
4. Effective Business Communication by Herta Murphy
5. Technical Communication: Principles and Practice by Raman and Sharma
6. EffectiveTechnicalCommunication:AGuideforScientistsandEngineersbyRizvi
7. Oxford Guide to Effective Writing & Speaking by John Seely
8. English Grammar by Raymond Murphy
9. Word Power Made Easy by Norman Lewis

Online References:

1.	https://bbclearningenglish.org
2.	https://www.bbc.co.uk/learningenglish

Assessment:

Internal Assessment Test (IAT) for15 marks each:

- IA will consist of Two Compulsory Internal Assessment Tests. Approximately 40% to 50% of the syllabus content must be covered in the IAT-I and the remaining 40% to 50% of the syllabus content must be covered in the IAT-II.

End Semester Theory Examination:

Question paper format

- Question Paper will comprise a total of **five questions each carrying 15 marks Q.1** Will be **compulsory** and should **cover the maximum contents of the syllabus**
- **Remaining questions** will be **mixed in nature** (part (a) and part (b) of each question must be from different modules. For example, if Q.2 has part (a) from Module 3 then part (b) must be from any other Module randomly selected from all the modules)
- A total of **three questions** need to be answered.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
AEL101	Professional Communication and Ethics	-	2	-	-	1	-	1

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test (IAT)			End Sem Exam	Exam Duration (in Hrs)			
		IAT-I	IAT-II	IAT-I+IAT-II(Total)					
AEL101	Professional Communication and Ethics	--	--	--	--	--	25	--	25

Lab Objectives: The learners should be able to:

1. Effectively evaluate the dynamics of communication and navigate professional arenas
2. Competently acquire active listening skills by comprehending various types of Speech Acts
3. Critically analyze communication barriers, audience and purpose to speak proficiently
4. Minutely comprehend extensive texts, technical and non-technical, to execute relevant tasks
5. Efficiently organize and create purposeful technical writing for professional transactions
6. Successfully manage teams, by applying ethical standards to deliver synergistic solutions

Lab Outcomes: The learners will be able to:

1. Apply the understanding of communication dynamics and navigate professional arenas
2. Appreciate other's point of view and apply effective listening strategies
3. Analyze different communication barriers ,audience and purpose to speak proficiently
4. Comprehend extensive technical and non-technical texts to execute specific tasks
5. Plan and create purposeful technical writing for professional transactions
6. Employ ethical standards and managerial skills in various professional situation

DETAILED SYLLABUS:

Sr. No.	Module No.	Practical/ Tutorial	Detailed Content	Hours	LO Mapping
1	Fundamentals of Communication	1	1.1. Situational Application of Fundamentals of Communication 1.2. Case Studies on Fundamentals of Communication	**02**	**LO1**

2	Developing Basic Listening Skills	2	2.1. Listening for Details • Listen to a song and fill in the blanks, Listen to a telephonic conversation and fill in the blanks, Listen to a story/lecture/podcast and filling the blanks, Listen to a monologue and complete the sentences 2.2. Listening for Gist • Listen to an audio recording and identify the gist/main idea/theme in the form of MCQs or True/False statements 2.3. Listening for Inference • Listen to short passages and draw inferences in the form of MCQs or True/False statements 2.4. Listening Comprehension Exercises in the Language Lab or on Open Source Platforms • Listening to a telephonic conversation, Listen to a Podcast Examples of the Activities That Can Be Done under the Above 4 Heads: Listen to a Formal Speech • Martin Luther King Jr., • Swami Vivekananda • Dr. A. P. J. Abdul Kalam • John F. Kennedy • Mr. Ratan Tata • Steve Jobs Note-taking & Designing Quizzes • Listen to a lecture, takenotes and prepare a quiz for others Dictations • Take old-fashioned dictation with special focus on punctuations and spellings	**04**	**LO2**

			Draw a Story • Listen to a descriptive passage read out by the teacher on a scenery/item and draw a picture based on what you hear Labeling a Map, Plan, Diagram, Table & Flow Charts • Listen to your teacher and write labels on a plan (*e.g. of a building*), map (*e.g. of part of a town*) diagram (*e.g.of a piece of equipment*), table (*e.g. place/time/price*), flow chart (*e.g. a process which has clear stages*).		
3	Developing Basic Speaking Skills	3	3.1. Conversational Activities- Monologues • Introducing yourself, Introducing others, One-minute impromptu speeches, Scaffolded story telling 3.2. Conversational Activities- Dialogues • Role plays on everyday interactions, Interviews (Find out if…), Information Gap Activities, Picture descriptions and feedback, Situational conversations. 3.3. Conversational Activities - Pronunciation, Stress and Rhythm, Intonation • Neutralisation of accent, Word stress, Rhythm & Pauses,Tonal variations/inflections Suggested Examples of Functional Communication Activities That Can Be Done under the Above 3 Heads: • Asking for and giving information • Taking initiative • Seeking and giving favour/offers • Requesting and responding to requests • Apologizing and forgiving • Seeking and giving permission	**04**	**LO3**

			• Congratulating people on their success • Expressing opinions, like sand dislikes, agreements and disagreements • Expressing condolences • Asking questions and responding politely • Giving instructions • Agreeing and disagreeing • Asking for and giving advice and suggestions • Expressing sympathy • Using mobile phone • Live commentary on videos on mute • Debates		
4	Developing Basic Reading Skills	4	4.1. Verbal Aptitude Reading Fluency & Comprehension Monitoring • Reading short/long passages to answer MCQs based on factual, general and inferential comprehension skills • Reading short/long passages to answer MCQs based on factual, general and inferential comprehension skills *(Passages should be of a technical nature and minimum length of passages should be 350-400 words)* 4.2. Vocabulary Building Activities Examples of Word Games: • Crosswords • Bingo • Word Ladders • Hangman • Word Association	**04**	**LO4**

			4.3. Reading & Summarisation Skills • Summarising text to Graphic Organisers and visa-versa o Venn diagrams o Radial Diagrams (*Mind maps*) o Tree Diagrams o Cyclic Diagrams o Flow Charts o Timelines		

			○ Matrix(*Tables*) ○ Pyramids • Summarizing text in bullet points • Summarizing text in one-sentence central idea		
5	Developing Basic Writing Skills	5	5.1. Mechanics of Writing-Paragraph Writing • Building paragraphs developing coherence (*Structure of written pieces, CSI Order of Organisation*) • Coherence (*Structure of written pieces, CSI Order of Organisation*) • Cohesive Devices (*Referencing, Repetition, Substitution, Ellipsis, Transition Signals*). • Structure of a Paragraph(*Topic Sentence, Supporting Ideas, Concluding Sentence*). 5.2.WriteLettersandeMails • Request/Permission Letter • Claim& Adjustment Letter • Sales Letter *(Complete Block format applying the seven Cs)* • eMails USE ONLY COMPLETE BLOCK FORMAT 5.3WritingUserInstructionson: Examples: • Installing a software • Ordering food on delivery apps (Zomato, Swiggy) • Using payment system(GooglePay, PhonePe, Paytm) • Using AI Tools (ChatGPT, Gemini, ZeroGPT and GPTZero) • Electronic Devices/Gadget*(Gaming Console, Smartwatch)* • Home Appliances *(Mixer-Grinder, Microwave Oven, Air Fryer)* • Tools*(Chisel, Screw-driver)* 5.4ContentCreationforSocialMedia and e-Commerce Platforms Examples	**04**	**LO5**

			• Blogs • Poetry • Key note speeches • Podcast Titles • Landing Pages • Social media posts • YouTube Video Description • Screenwriting/Script Writing *(Ensure minimum 3 of these categories are covered in the form of competitions)*		
6	Ethical and Managerial Skills for Engineers	6	6.1. Ethics • Case Studies on Ethical dilemma 6.2.Teambuilding Examples • Newspaper Bridges/Towers/Dress Building • Best out of waste • Obstacle Race	**02**	**LO6**

Nos.	List of Assignments	Details	Hrs.
01	Application-based Assignment on Communication Theory	Must include Methods and Barriers from Module 1	**01**
02	Consolidated Listening Skills Activity Sheet with Students' Answers	At least 4 type of listening activities must be taken from Module 2	**01**
03	Performance-based Oral Activities*(Refer below for further details)*	Should be based on Continuous Evaluation of minimum 5 activities from entire lab syllabus. Follow the Common European Framework of Reference (CEFR) Rubrics for assessment.	**01**
04	**A.** MCQ on Reading Comprehension and Summarization with GO **B.** Objective Test on Verbal Aptitude & Grammar	**A.** Must cover sub-topics under Module 4 **B.** Must be based on Module 4 at the same difficulty level of entrance tests like CAT/GRE/GMAT & proficiency tests like TOEFL/IELTS	**01**
05	Assignment on Writing Skills	Must include 3types of letters from Module 5	**01**
06	Application-based Assignment on Ethics	Case studies on ethical dilemma from Module 6	**01**

References:

1. Communication Skills by Sanjay Kumar & Pushp Lata
2. Business Communication with Writing Improvement Exercises. Hemphill, McCormick and Hemphill
3. Business Communication: Building Critical Skills by Locker, Kitty O. Kaczmarek, Stephen Kyo
4. Effective Business Communication by Herta Murphy
5. Technical Communication: Principles and Practice by Raman and Sharma
6. EffectiveTechnicalCommunication:AGuideforScientistsandEngineersbyRizvi
7. Oxford Guide to Effective Writing & Speaking by John Seely
8. English Grammar by Raymond Murphy
9. Word Power Made Easy by Norman Lewis

Online References:

Sr. No.	Website Name
1.	https://bbclearningenglish.org
2.	https://www.bbc.co.uk/learningenglish

Term Work: Term Work shall consist of at least 6 practical based on the above list. Also, Term Work Journal must include at least 9 assignments.
Term Work Marks: 25 Marks (Total marks) =10 Marks (Experiment)+10Marks(Assignments)+ 5 Marks (Attendance)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total

VSEC101	**Design Workshop**	**-**	**02**	**-**	**-**	**01**	**-**	**01**

Course Code	**Course Name**	**Theory**					**Term work**	**Pract/ Oral**	**Total**
		Internal Assessment Test (IAT)			**End Sem Exam**	**Exam Duration (in Hrs)**			
		IAT-I	**IAT-II**	**IAT-I + IAT-II (Total)**					
VSEC101	**Design Workshop**	**--**	**--**	**--**	**--**	**--**	**25**	**--**	**25**

Lab Objectives:

1. Understand the representation principles and applying to various projects to familiarize with the basic manufacturing processes.
2. Learn to use the relevant tools and equipment for Product design and development.
3. Acquire competence to use hand tools and machines tools.

Sr. No.	**Lab Outcomes**
The course aims to :	
1	Understand the process of model making
2	Acquire ability to identity clay materials
3	Understand properties of wood material
4	Understand properties of metal materials
5	Understand properties of textiles materials
6	Understand properties of plastic materials

DETAILED SYLLABUS:

Sr. No.	Module	Detailed Content	Hours
I	**Introduction to model making**	Need; role of scale models in design: general practices: Essentials of model making: understanding of various tools and machines employed, best practices involved in operating the tools and the techniques. Introduction to the Mount Board/Paper/Boards for model making – types, properties etc. Hand building techniques on different planes - making rigid forms like, cubic, spherical, pyramidal shaped forms, depiction of steps, free forms, sculptures, etc.	**4**
II	**Materials and techniques (clay)**	Ceramics – clay/ plaster of Paris: Introduction to model making, Need; role of scale models in design: general practices - The potter's wheel – kneading the clay, function of hands in throwing. Learning basic techniques in making different objects like bowl, plate, cylinder, vase, etc. Essentials of model making: understanding of various tools and machines employed, best practices involved in operating the tools and the techniques. Introduction to the Ceramic materials used for model making – clay, types and mixtures, properties etc. Hand building techniques- coiling, hand building with clay strips- making a small sculpture in Relief work – addition - making a mural, scooping – tile work.	**5**
III	**Materials and techniques (wood)**	Wood: Working with wood and wood derivatives to understand material parameters. Wooden joinery and its strength, Wood polishes and other finishes – colour and surface quality. Making of elements of various scales in the built form, such as, interior space making elements, furniture forms, various products, Art & Artifacts by using wood. Understanding the material and tools by making objects which allow students to explore the forms, surfaces, textures and patterns. Explore different joinery, support conditions, and woven surfaces**.**	**4**
IV	**Materials and techniques (metal)**	Metal: Types of metals, properties of metals, definitions of terms with reference to properties and uses of metals, various methods of working with metals, fixing and joinery in metals, finishing and treatment of metals., finishes on metals. Standard specifications. Metals in built form activity – horizontal, vertical and inclined surfaces – in interior environment elements- products and furniture forms - doors, windows, grilles, railing, stair etc. Metals and other materials –form and joinery.	**4**
V	**Materials and techniques (textiles)**	Textiles – Weaving & printing: Introduction to fibers and yarns, table loom and floor loom, preparing warp, setting up loom for weaving. Basic weaves and their variations. Variation weaves and design quality, weaves as light controlling device, weaves and its quality for upholstery, curtains and floor coverings, Rugs and durries – motifs design, patterns and color variations. Development of textile design in different cultures from primitive art to contemporary designs. Criteria of design of the elements and principles of textile	**5**

		design. Analysis of a motif, developing repeat as a basic unit of design in textile printing. Printing – developing block, understanding the material used, colors, types and their mixing process, various color printing. Screen printing – design evolution for wall hangings, preparing screen and understanding the technique, printing on paper and printing on fabric.	
V I	**Materials and techniques (plastics)**	Plastics: Types of plastics, properties of plastics, definitions of terms with reference to properties and uses of plastics, various methods of working with plastics, Standard specifications. Applications of plastics and their purposes. Making objects and products from plastic materials.	**4**

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments/ Lab work (limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Assessment:

Distribution of marks for term work-20

Attendance- 5 Marks

ASSESSMENT:

End Semester Practical/Oral examination:

1. Each student will be given a small task of design/ Sketch/ Small activity based on syllabus, which will be assessed by pair of examiners during the oral examination.
2. Distribution of marks for practical-oral examination shall be as follows:

Design / Sketch/ Small activity Task: 15 marks

Oral: 10 marks

3. Evaluation of practical/oral examination to be done based on the performance of design task
4. Students work along with evaluation report to be preserved till the next examination

Text Books and References:

1) Raymond Francis Yates, Model Making, Including Workshop Practice, Design and Construction of Models, Fb&c Limited, 2017.
2) Norman G. Taylor, Model Building and Design - with 94 Illustrations, Read Books, 2013.
3) Carol Stangler, The crafts and art of Bamboo, Rev. updated edition, Lark books, 2009.
4) Lonnie Bird, Jeff Jewitt, Thomas lie- Nielsen, Taunton's Complete Illustrated Guide to Woodworking, Taunton, 2005.
5) Peter Korn, Wood working Basics : Mastering the essentials of craftsmanship, Taunton , 2003
6) Liz Gibson, Weaving Made Easy: 17 Projects Using a Simple Loom (Paperback), Interweave press, 2008
7) Fabrics: A guide for architects and Interior Designers, Marypaul Yates, Norton publishers, 2002.
8) Materials for Interior Environments, Corky Bingelli, John wiley and sons, 2007
9) Metal Shaping Processes - Casting and Molding; Particulate Processing; Deformation Processes; and Metal
10) Model Making: Including Workshop Practice, Design and Construction of Models, a Practical Treatise for the Amateur and Professional Mechanic By Raymond Francis Yates

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
VSEC102	Computer Applications	2*+2	--	-	-	2	-	2

		Theory					Term work	Pract /Oral	Total
		Internal Assessment (IAT)			End Sem Exam	Exam Duration (in Hrs)			
		IAT - I	IAT - II	IAT-I+ IAT-II (Total)					
VSEC102	Computer Applications	-	-	-	-	-	25	25	50

*Two hours of practical class to be conducted for full class as demo/discussion.

Lab objectives:

The subject aim to provide the students with:

1. Understand various component of computer and their usage.
2. Understand software categories and how to use this software.
3. Acquire knowledge of Microsoft office suit and have hands on it.
4. Understand the usage of internet, its pros and cons.
5. Acquire knowledge of different types of virus and how to keep your computer safe.
6. Getting familiar with the DOS command.

Lab Outcomes:

1. Define the need of hardware and software required for a computation task.
2. Demonstrate the working of important application software and their use to perform any design activity.
3. Utilize the operating system commands and shell script.
4. Illustrate the typical provisions of cyber law that govern the proper usage of internet and computing resources.
5. Interpret the emerging trends and applications of Computers Science and Design impact of Design students.
6. Understand use of websites

Prerequisite: Elementary knowledge about computer

DETAILEDSYLLABUS:

Sr. No.	**Name of Module**	**Detailed Content**	**Hours**	**CO Map ping**
I	Introduction to Computers	Basics of computer, Characteristics of computers, Limitations of computers, System Components, Input devices, Output devices, Computer Memory, Central Processing Unit, Mother Board. Computer Generations & Classifications: Evolution of computers, Classification of Computers	**3**	**CO1**
II	Computer Memory	Memory System, Memory Cells, Memory Arrays, Random Access Memory (RAM) Read Only Memory (ROM), Physical Devices Used to construct Memories, Bus, Bus Interface, Industry standard architecture (ISA), Micro Channel Architecture (MCA), VESA (Video Electronics Standards Association, Peripheral component Interconnect, Accelerated graphics Port, FSB, USB, Dual Independent Bus, Troubleshooting. Storage Devices: Hard Disk- Construction, IDE drive standard and features, Troubleshooting, DVD, Blue-Ray disc, Flash Memory, Input Output Devices: Wired and Wireless connectivity, Wired and Wireless Devices, Input Devices, Touch Screen, Visual Display Terminal, Troubleshooting	**4**	**CO2**

III	Introduction to Computer Software	Computer Software, Overview of different operating systems, Overview of different application software, Overview of proprietary software, Overview of open-source technology. Software Development, Design and Testing: Requirement Analysis, Design Process, Models for System Development, Software Testing Life Cycle, Software Testing, Software Paradigms, Programming Methods, Software Applications. Operating System Concepts: Operating System Concepts, Functions of Operating System, Development of Operating System, Operating system virtual memory, Operating System Components, Operating System Services, Operating System Security.	**5**	**CO3**
I V	Internet and Its Working	History of Internet, Web browsers, Web servers, Hypertext Transfer Protocol, Internet Protocols Addressing, Internet Connection Types, How Internet Works.	**5**	**CO4**
V	Internet and Its Uses	Internet Security, Uses of Internet, Virus, Antivirus, Cloud System, Cloud Technologies, Cloud Architecture, Cloud Infrastructure, Cloud Deployment Models.		**CO5**
VI	Introduction, to websites	Introduction, Types of websites, Components of web site, Domain rank, Architecture of Website, Website Designing Basics, Domain, Hosting, Difference between dynamic & static website, Introduction to SEO, Page Rank, Domain Rank, Google Maps	**5**	**CO6**

Text Books:

1. Computer Fundamental by DP Nagpal, 2010 S Chand Publication
2. Computer Fundamental by Anita Goel, 2010 Pearson Education. • fundamental of computers by E Balagurusamy, McGraw-Hill

Reference Books:

1. Basic Computer Engineering by Sanjay Kumar Dubey, 2012, JBC Publisher and distributers
2. Computer Fundamental by P.K Sinha, BPB Publication

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
CC101	Induction cum Universal Human Values	2#	-	-	-	-	-	2

Course Code	Course Name	Theory					Term work	Pract/ Oral	Total
		Internal Assessment Test (IAT)			End Sem Exam	Exam Duration (in Hrs)			
		IAT-I	IAT-II	IAT-I + IAT-II (Total)					
CC101	Induction cum Universal Human Values	--	--	--	--	--	--	--	--

Rationale:

"The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy…, with sound ethical moorings and values. It aim sat producing engaged, productive, and contributing citizens for building an equitable, inclusive, and plural society as envisaged by our Constitution. Education must develop not only cognitive capacities... but also social, ethical, and emotional capacities and dispositions…. Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development… A holistic and multidisciplinary education would aim to develop all capacities of human beings–intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner" [NEP 2020, p 4].

UHV courses are intended to help students to develop a holistic, humane world vision. A self-reflective, exploration methodology is adopted. All content discussed is universal, rational, and verifiable, and leads to harmony.

Holistic education inculcates the following three aspects in the student:

1. **Holistic, Humane Vision of Life**–harmonious individual to cosmos
2. **Human Values**– human feelings, participation based on holistic vision
3. **Skills**–requiredtolivewiththesevaluesinmutualrelationshipatalllevelsofhumanexistence

Course Objectives:

The objective of the course is:

1. Development of a holistic perspective based on self-exploration about themselves (human being), family, society and nature/existence.
2. Understanding (or developing clarity) of the harmony in the human being, family, society and nature/existence
3. Strengthening of self-reflection.
4. Development of commitment and courage to act.
5. Prepare learner for achieving full human potential who can be contribute for developing an equitable and just society, and promoting national development
6. Developing clarity of these fundamental universal human values to help the learner in understanding and living by the various specific expressions. E.g., National values enshrined in the Constitution, aspirations articulated in NEP 2020, UN MDGs and SDGs...

Course Outcomes: After completion of the course learner will be able to

1. Identify basic human aspirations and programme for its fulfillment.
2. Express existing reality of Human being
3. Explain the values in human-human relationship and program for its fulfilment to ensure mutual happiness.
4. Describe harmony in surroundings family and society.
5. Explain harmony nature, existence as coexistence and become more responsible in life, in handling problems with sustainable solutions.
6. Apply what they have learnt to their own self in day-to-day life and utilize the professional competence for augmenting universal human order, develop holistic technologies, management models and production systems.

Prerequisite: There is no prerequisite for this course.

DETAILEDSYLLABUS:

Sr. No.	Name of Module	Detailed Content	Hours	CO Mapping
0	Prerequisite	No prerequisite		
I	Introduction - Need, Basic Guidelines, Content and Process for Value Education	Purpose and motivation for the course, Self-Exploration, Continuous Happiness and Prosperity- the basic Human Aspirations, Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations, Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario, Method to fulfill the above Human aspirations.	**05**	**CO1**

II	Understanding Harmony in the Human Being	Understanding human being as a co-existence of the sentient 'I' and the material 'Body'. Understanding the needs of Self ('I') and 'Body' - Happiness and physical facility. the Body as an instrument of 'I', characteristics and activities of 'I' and harmony in 'I', harmony of I with the Body: Self-regulation and Health; correct appraisal of Physical needs, meaning of Prosperity in detail, Programs to ensure Self-regulation and Health.	**04**	**CO2**
III	Understanding Harmony in the Family	Understanding values in human-human relationship and program for its fulfillment to ensure mutual happiness; Trust and Respect as the foundational values of relationship, the other salient values in relationship	**07**	**CO3**

IV	Understanding Harmony in the Society	Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals, Visualizing a universal harmonious order in Society- Undivided Society, Universal Order- from family to world family.	**03**	**CO4**
V	Understanding Harmony in the Nature and Existence-Whole existence as Coexistence	Understanding the harmony in the Nature, Interconnectedness and mutual fulfillment among the four orders of nature, cyclability and self- regulation in nature. Understanding Existence as Co-existence of mutually interacting units in all Pervasive space, Holistic perception of harmony at all levels of existence.	**04**	**CO5**
VI	Implications of the Holistic Understanding of Harmony on Professional Ethics	Natural acceptance of human values, Definitiveness of Ethical Human Conduct, Basis for Humanistic Education, Humanistic Constitution and Humanistic. Universal Order, Competence in professional ethics: Ability to utilize the professional competence for augmenting universal human order and identify the scope and characteristics of people friendly and eco-friendly production systems. Ability to identify and develop appropriate technologies and management patterns for above production systems. Case studies of typical holistic technologies, management models and production systems, Strategy for transition from the present state to Universal Human Order. Sum up.	**03**	**CO6**

(In every module one lecture can be used for students sharing and discussion)

Text Books:

1. A Foundation Course in Human Values and Professional Ethics, R R Gaur, R Asthana, G P Bagaria, 3rd Revised Edition, Excel Books, New Delhi, 2019. ISBN 978-93-87034-47-1
2. The Teacher's Manual Teachers" Manual for A Foundation Course in Human Values and Professional Ethics, R R Gaur, R Asthana, G P Bagaria, 2nd Revised Edition, Excel Books, New Delhi, 2019. ISBN 978-93-87034-53-2
3. A Foundation Course in Holistic Human Health – Its Philosophy and Practice, Sharmila Asthana, Akhilesh Shukla, T Sundara Raj Perumall, 1st Edition, October 2023, Published by UHV Publications, , Kanpur, UP.7

References:

1. Jeevan Vidya: Ek Parichaya, A Nagaraj, Jeevan Vidya
2. Prakashan, Amarkantak,1999.
3. Human Values,A. N. Tripathi,NewAgeIntl.Publishers,NewDelhi,2004.
4. The Story of Stuff (Book).
5. The Story of My Experiments with Truth-by Mohandas Karamchand Gandhi
6. Small is Beautiful-E.FSchumacher.

7. Slow is Beautiful-Cecile Andrews
8. Economy of Permanence- J C Kumarappa
9. Bharat Mein Angreji Raj–Pandit Sunderlal
10. Rediscovering India- by Dharampal
11. Hind Swaraj or Indian Home Rule-by Mohandas K. Gandhi
12. India Wins Freedom-Maulana Abdul Kalam Azad
13. Vivekananda-Romain Rolland (English)
14. Gandhi-Romain Rolland(English)

Online References:

Sr. No.	Website Name
7.	https://uhv.org.in

Note:

1. This is an **audit course.**
2. This course is to be taught by faculty from every teaching department
3. Lecture hours are to be used for interactive discussion, placing the proposals about the topics at hand and motivating students to reflect, explore and verify them.
4. Inthediscussions,thementorencouragesthestudenttoconnectwithone'sownselfanddo Self-observation, self-reflection and self-exploration
5. One or two periods from each module may be used for tutorials. These are important for the course. The difference is that the laboratory is everyday life, and practical are how you behave and work in real life.
6. Depending on the nature of topics, worksheets, home assignment and/or activity can be included. The practice sessions (tutorials) would also provide support to a student in performing actions commensurate to his/her beliefs. It is intended that this would lead to development of commitment, namely behaving and working based on basic human values.

Program Structure for First Year Design

UNIVERSITYOF MUMBAI
(NEP2020 with Effect from Academic Year 2025-2026)

Semester II

Course Code	Course Description	Teaching Scheme (Contact Hours)			Credit Assigned			
		Theory	Practical	Tutorial	Theory	Tutorial	Practical	Total Credits
BSC201	Fundamentals of Design-II	2	-	1	2	1	--	3
BSC202	Materials and Processes in Design-II	2	-	-	2	-	--	2
BSC203	Typography Fundamentals	2	-	-	2	-	--	2
ESC201	Digitals Methods-II	3	-	-	3	-	--	3
PCC201	Program Core Course	2	-	-	2	-	--	2
BSL201	Fundamentals of Design-II Lab	-	1	-	-	-	0.5	0.5
BSL202	Digitals Methods-II Lab	-	1	-	-	-	0.5	0.5
ESL201	Rendering and Illustration Lab	-	2	--	-	-	1	1
PCL201	Program Core Lab	-	2	-	-	-	1	1
CC201	Social Science & Community Services	-	2*+2	-	-	-	2	2
IKS201	Indian Knowledge System	-	2*+2	-	-	-	2	2
VSEC201	Social Media Lab	-	2	-	-	-	1	1
V SEC202	Design Studio	-	2*+2	-	-	-	2	2
Total		**11**	**20**	**01**	**11**	**01**	**10**	**22**

*Two hours of practical class to be conducted for full class as demo/discussion

#Course evaluation is activity-based which maybe individual or group of Two to four students.

Theory / Tutorial 1 credit for 1 hour and Practical 1 credit for 2 hours.

Semester II

Course Code	Course Description	Examination scheme							
		Internal Assessment Test (IAT)			End Sem. Exam Marks	End Sem. Exam Duration (Hrs)	Term Work (Tw)	Oral & Pract.	Total
		IAT-I	IAT-II	Total (IAT-I)+ IAT-II)					
BSC201	Fundamentals of Design-II	20	20	40	60	02	25	--	125
BSC202	Materials and Processes -II	15	15	30	45	1.5	--	--	75
BSC203	Typography Fundamentals	15	15	30	45	1.5	--	--	75
ESC201	Digitals Methods-II	20	20	40	60	02	--	--	100
PCC201	Program Core Course	20	20	40	60	02	--	--	100
BSL201	Fundamentals of Design-II Lab	--	--	--	--	--	25	--	25
BSL202	Digitals Methods-II Lab	--	--	--	--	--	25	--	25
ESL201	Rendering and Illustration Lab	--	--	--	--	--	25	25	50
PCL201	Program Core Lab	--	--	--	--	--	25	25	50
CC201	Social Science & Community Services	--	--	--	--	--	25	--	25
IKS201	Indian Knowledge System	--	--	--	--	--	25	--	25
VSEC201	Social Media Lab	--	--	--	--	--	25	--	25
VSEC202	Design Studio	--	--	--	--	--	25	25	50
Total		**90**	**90**	**180**	**270**	**09**	**225**	**75**	**750**

Program Core Course

PCC201	Name of Program as per Cluster	Name of Program Core Course
PCC201	Bachelor of Design in Design and Bachelor of Design in Industrial Design	**Overview of Design Process**

Program Core Lab

PCL201	Name of Program as per Cluster	Name of Program Core Course
PCL201	Bachelor of Design in Design and Bachelor of Design in Industrial Design	**Overview of Design Process**

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSC201	Fundamentals of Design-II	02	-	01	02	-	01	03

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (InHrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSC201	Fundamentals of Design-II	20	20	40	60	2	25	--	125

Course Objectives:

Students will be able to

1. Learn The Elements and Principles of Art and Design
2. Understand The concepts of Color Theory
3. Identify and explain the success of the elements and principles of art and design within a composition.
4. Define how the elements of art are used to create the principles of design.
5. Define how the principles combine the elements to create an aesthetic placement of ideas that will produce a good design.
6. Recognize, select, use, and care for the appropriate tools and techniques for production and apply and control the medium of choice for production.

Course Outcomes:

Sr. No	Fundamentals of Design-I
1	Develop a deeper understanding of spatial and perspective principles in design.
2	To explore advanced concepts in storytelling and visual narrative creation.
3	Create complex patterns and textures with real-world applications.
4	To master the principles and applications of typography in design projects.
5	Develop hands-on skills in working with diverse materials for prototyping and conceptualization.
6	Integrate knowledge from Fundamentals of Design-I into advanced design practices.

DETAILED SYLLABUS:

Sr. No	Module	Detailed Content	Hours
I	Advanced Space and Perspective	Review of basic spatial principles from Fundamentals of Design-I. Advanced techniques: Two-point and three-point perspectives. Understanding scale, proportion, and depth. Application in product, interior, and graphic design.	**4**
II	Exploring Visual Narratives	Visual storytelling through sequential compositions. Elements of narrative: Characters, settings, and action lines. Applications in comics, storyboards, and info graphics.	**5**
III	Advanced Patterns and Textures	Creating seamless patterns and understanding tessellations. Exploration of organic and geometric textures. Application of patterns in textile and surface design.	**5**
IV	Typography in Design	Principles of typography: Fonts, hierarchy, alignment, and spacing.	**4**

		Exploring the emotional impact of typography in communication. Designing typographic posters, logos, and visual layouts.	
V	Experimenting with Materials	Advanced exploration of materials: Fabric, wood, and mixed media. Building functional prototypes using diverse materials.	**4**
VI	Understanding material properties and sustainability	Understanding material properties and sustainability	**4**

Online References:

Sr. No.	**Website Name**
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

1. "Graphic Design: The New Basics" by Ellen Lupton and Jennifer Cole Phillips – Princeton Architectural Press.
2. "The Geometry of Design" by Kimberly Elam – Princeton Architectural Press.
3. "Type Matters!" by Jim Williams – Merrell Publishers.
4. "Making and Breaking the Grid" by Timothy Samara – Rockport Publishers.
5. "Surface Pattern Design" by Kristi O'Meara – Chronicle Books.
6. "Material Innovation in Design" by Andrew Dent and Leslie Sherr – Thames & Hudson.

Course Code	Course Name	Teaching Scheme (Contac tHours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSC202	Materials and Processes -II	2	--	-	2		-	02

		Theory					Term work	Pract /Oral	Total
		Internal Assessment (IAT)			End Sem Exam	Exam Duration (inHrs)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSC202	Materials and Processes in Design-II	15	15	30	45	1.5	--	--	75

Course objectives:

Students will be able to

1. To understand the nature and qualities of metals.
2. To understand the various processing techniques for achieving desired form and color for newly designed products.
3. To give the fundamental knowledge of metal finishes and understand various properties of metals.
4. To understand the nature and qualities of non-metals.
5. To understand the various processing techniques for achieving desired form and color for newly designed products.
6. To give the fundamental knowledge of non-metal finishes and understand various properties of non-metals.

Course Outcomes:

Sr. No.	COURSE OBJECTIVES
The course aims:	
1	To gain knowledge and skills related to Manufacturing Technologies
2	To learn the selection of material, equipment and development of a product for Industry 4.0 Environment.
3	To understand the various software tools, process and techniques for digital manufacturing
4	To apply these techniques into various applications
5	To understand coating process
6	To study additive manufacturing

DETAILEDSYLLABUS:

Sr. No.	Module	Detailed Content	Hours
01	Metals Processes	Understand the world of METAL in sheet form and learn to manipulate it through various exercises by learning cutting, beating, polishing and forming skills and using them to develop associative and emotive qualities Variation in Metal Fabrication of object. Model representation **Forming Processes** Forging. Extrusion. Rolling. Sheet metal working	**06**
02	Wood Processes	Understand the world of WOOD and learn to manipulate it through cutting, planning, sawing, sculpting and joining and other surface treatments like polishing, staining and texturing Variation in Wood composition of object. Model representation **Joining Processes** Welding, Brazing, Soldering, Riveting, Bolting / Screwing, Adhesive	**06**
03	Machining Processes	Conventional Machining • Turning, Drilling, Milling Abrasive Processes • Grinding Non-Traditional Machining • EDM • EDM WIRE CUT	**06**
04	Casting processes	Centrifugal casting, Die casting, Sand casting, Permanent Mold casting,	**06**

05	Coating Processes	Powder coating, Electro Coating	**06**
06	Additive manufacturing	Liquid Materials Production Powder Material Production Solid Materials Production	**06**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books:

1. Manufacturing Processes for Engineering Materials By : Serope Kalpakjian, Steven R Schmid
2. Materials and Manufacturing Processes- By: Kaushik Kumar, Hridayjit Kalita, Divya Zindani. J. Paulo Davim
3. Chris Lefteri: Materials for Inspiration.
4. Bruce Hoadley: Understanding Wood.
5. Ezio Manzini: Materials of Invention.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSC203	Typography Fundamentals	02	-	-	02	-	-	02

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (InHrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSC203	Typography Fundamentals	15	15	30	45	1.5	--	--	75

Course Objectives:

1. Understand the role of typography: Learn how typography is used in everyday life
2. Understand the history of writing: Learn about the evolution of writing, from early scripts to the alphabet
3. Understand typographic principles: Learn the basic principles of micro- and macro-typography
4. Identify and use typefaces: Learn how to identify and classify typefaces
5. Understand type terminology: Learn the terminology used to describe type
6. Understand how to measure and align type: Learn how to measure and align type

Course Outcomes:

Sr. No.	COURSE OBJECTIVES
The course aims:	
1	Acquire understanding of various typefaces and develop sensitivity
2	Develop skills to use Typography in engaging visual compositions
3	Develop skills to reproduce type in appropriate media and printing method
4	Develop skills to develop new types in a specific context.
5	Acquire skills to creatively intervene type to emote a specific expression

6	Understand the Type forms with space

DETAILED SYLLABUS:

Sr. No	Module	Detailed Content	Hours
I	Visualization and application of Typography	Visualization and application of Typography. Exploration of various typography styles.	4
II	Logic, basic characteristics and difference of Serif and Sans Serif.	Logic, basic characteristics and difference of Serif and Sans Serif. Understanding the natural form of Typeface and its anatomy.	4
III	Psychological, Semantic and Expressive value of Typography	Psychological, Semantic and Expressive value of Typography and its applications. Guidelines for Typography in printing and production.	4
IV	Grids and Various sizes of printing products for Typography	Grids and Various sizes of printing products for Typography application. Layout making.	5
V	Ability to play with various other graphic elements emphasizing Typography.	Ability to play with various other graphic elements emphasizing Typography. Choosing the right Font, size, orientation,	5
VI	Balancing the Type forms with space.	Balancing the Type forms with space.	4

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books

1. Jute, Andre ;Grids : the structure of graphic design. Crans-Pres-Celigny Rotovision, 1996
2. Schmid Helmut, Typography Today,2nd Edition, Seibundo Shinkosha, 2003.
3. Rand,Paul; Design, Form, and Chaos, Yale University Press, 1993.

References:

1. Robert Bringhurst: The Elements of Typographic Style: Version 4.0
2. Tim Brown: Flexible Typesetting

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
ESC201	Digitals Methods-II	03	-	-	03	-	-	03

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
ESC201	Digitals Methods-II	20	20	40	60	02	--	--	100

Course Objectives:

Sr. No	Course Objectives Digital Methods-II
1	Introduce students to essential 2D and 3D design software tools for visualizing and executing design concepts.
2	Develop skills in creating and refining 2D and 3D forms using digital tools.
3	Explore the application of digital methods in realizing design intent effectively.
4	Encourage creativity and technical competence in using digital software to support design solutions.

Course Outcomes:

Sr. No	Learning Outcomes Digital Methods-II
1	Be proficient in Photoshop, Corel DRAW, and Illustrator.
2	Have the ability to create professional designs for diverse purposes.
3	Understand industry standards for graphic design and file preparation.
4	Develop a portfolio showcasing their design skills and creativity.
5	Learn various software
6	Create portfolio

DETAILED SYLLABUS:

Sr. No	Module	Detailed Content	Hours
I	Introduction to 2D Software Tools	Overview of common 2D design software (e.g., Photoshop, Adobe Illustrator, Corel DRAW, or similar). Introduction to tools: Selection, shapes, drawing, text, colors, and layers. Understanding files formats and resolution. Basics of vector graphics and digital typography.	**4**
II	Use of 2D Software Tools to Realize Design Intent	Advanced tools: Gradients, patterns, masks, and blending modes. Techniques for design composition and visual balance. Exporting designs for print and digital media. Introduction to prototyping and mockups using 2D tools.	**4**
III	Introduction to Photoshop	Overview of Photoshop tools and workspace Image resolution, color modes, and file formats Selection tools (Marquee, Lasso, Magic Wand) Layers, masks, and blending modes Basic photo editing: Crop, retouch, and color correction	**4**
IV	Advanced Photoshop Techniques	Advanced photo manipulation techniques Typography and text effects Filters, smart objects, and layer styles Creating mockups for branding and product design Exporting files for print and web	**4**
V	Introduction to various software-Corel DRAW	Advanced vector illustration techniques Working with typography in Corel DRAW Preparing multi-page documents (brochures, catalogs) Combining bitmap and vector graphics File preparation for print and digital platforms Overview of Adobe Illustrator and its workspace	**5**
VI	Introduction to Illustrator	Creating and editing vector graphics Pen tool and pathfinder techniques Working with patterns and brushes Typography and text effects	**5**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books and References:

1. Adobe Creative Team, Adobe Illustrator Classroom in a Book (2023), Adobe Press.
2. Andrew Faulkner & Conrad Chavez, Adobe Photoshop Classroom in a Book (2023), Adobe Press.
3. Jonathan Derksen, SketchUp for Design Visualization (2022), Packt Publishing.
4. Allan Brito, Blender 3D by Example (2021), Packt Publishing.
5. Tony Parisi, Learning Virtual Reality: Developing Immersive Experiences and Applications (2015), O'Reilly Media.
6. Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques (2018), Wiley.

This syllabus ensures students gain practical knowledge and hands-on experience with industry-standard tools, preparing them for advanced applications in design.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
PCC201	Program Core Course-Overview of Design Process	02	-	-	02	-	-	02

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (InHrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
PCC201	Program Core Course- Overview of Design Process	20	20	40	60	02	--	--	100

Course Objectives:

Students will be able to

1. Understand the Design Thinking Framework
2. Use Research Methods
3. Use Concept Generation and Ideation
4. Use Prototyping and Testing
5. Understand Visual Communication and Design Principles
6. Collaborate and Teamwork

Sr. No.	Course Outcomes
The course aims:	
1	Understand design principles
2	Study new principles of design
3	Study design principles and aesthetic Bias
4	
5	Understand Fibonacci Sequence
6	Study psychology and aesthetics Human Factors

Sr. No.	Module	Detailed Content	Hours
01	Design Principles	What is design, Types of design, Design basics, Design basics terminology Elements of design Form Follows Function – beauty is purity of function. Ockham's Razor – choose simplest of functionally equivalent designs	**04**
02	New Principles Overview	Less is More 80/20 Rule – 80 percent of products use involves 20 percent of its features Flexibility-Usability Tradeoff – as flexibility increases, usability decreases Signal-to-Noise Ratio – choose design that has high signal to noise ratio	**04**
03	Design Principles Assignment Critique – Design Process	Development Cycle – heuristic steps of discovery Garbage-In-Garbage-Out – quality output depends on quality info in Iteration – repeated operations to reach desired result Life Cycle – stages of product existence Prototyping – simplified models to explore ideas. Storytelling – create imagery, emotions and understanding	**05**
04	Design Principles Assignment Critique – Aesthetic Bias	Design Principles Assignment Critique – Aesthetic Bias / part. Aesthetic-Usability Effect – aesthetic design perceived to be easy to use. Attractiveness Bias – why beautiful people excel. Baby-Face Bias – attraction to all things cute. Picture Superiority Effect – remember pictures better than words	**05**
05	Fibonacci Sequence	Fibonacci Sequence – sequence of numbers that are sum of two preceding. Golden Ratio – geometric theorem for balance in design. Good Continuation – Gestalt of perceived connectivity of elements Closure – seeing groups of design elements as one large design element. Constancy – perception of constancy in spite of actual expression. Law of Pragnanz – tendency to interpret ambiguous info	**04**
06	Psychology and Aesthetics	Hierarchy of Needs – stratification of aesthetic needs based on Maslow	**04**

		Human Factors	Mnemonic Device – organize information to make it memorable. von Restorff Effect – well placed discontinuity to engage memory. Framing – manipulating how information is presented Operant Conditioning – perceptional modification via range of stimuli. Threat Detection – natural abhorrence to negative imagery Performance Load – greater the effort, greater chance of failure. Performance vs. Preference – optimum gives way to preference. Progressive Disclosure – sequentially disclosed information. Readability – quick understandability (reading level: 1st grade vs. college) . Serial Position Effects – info at ends more memorable than middle Balance, Proportion, Rhythm, Emphasis, Unity	

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books:

1. "Design Basics" by David A. Lauer and Stephen Pentak – Wadsworth Publishing.
2. "Interaction of Color" by Josef Albers – Yale University Press.
3. "Principles of Form and Design" by Wucius Wong – Wiley.
4. "The Elements of Graphic Design" by Alex W. White – Allworth Press.
5. "Typography Essentials: 100 Design Principles for Working with Type" by Ina Saltz – Rockport Publishers.
6. "Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students" by Ellen Lupton – Princeton Architectural Press.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSL201	Fundamentals of Design-II Lab	--	1	-	-	0.5	-	0.5

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSL201	Fundamentals of Design-II Lab	--	--	-	--	--	25	--	25

Lab Objectives

Sr. No	Fundamentals of Design-I
1	Develop a deeper understanding of spatial and perspective principles in design.
2	To explore advanced concepts in storytelling and visual narrative creation.
3	Create complex patterns and textures with real-world applications.
4	To master the principles and applications of typography in design projects.
5	Develop hands-on skills in working with diverse materials for prototyping and conceptualization.
6	Integrate knowledge from Fundamentals of Design-I into advanced design practices.

Lab Outcomes:

Students will be

1. Acquire knowledge of Advanced Space and Perspective
2. Explore Visual Narratives
3. Learn Advanced Patterns and Textures
4. Learn Typography in Design
5. Learn experimenting with Materials
6. Create a portfolio

Experiment for Fundamentals of Design-II

Sr. No	Module	Experiment Details	Hours	LO Mapping
1	Advanced Space and Perspective	Create a perspective drawing of an urban streetscape using two-point perspective. Design a futuristic interior using three-point perspective and include detailed sketches.	2	LO1
2	Exploring Visual Narratives	Develop a 4-panel comic strip that tells a short story. Design an infographic that visually explains a complex process (e.g., recycling).	2	LO2
3	Advanced Patterns and Textures	Create a seamless geometric pattern inspired by cultural motifs. Design a surface texture for a product, such as a vase or fabric, using organic forms.	2	LO3
4	Typography in Design	Create a typographic poster using only typefaces, focusing on hierarchy and spacing. Design a fictional logo using custom typography and provide a rationale for its design.	2	LO4
5	Experimenting with Materials	Build a small prototype of a functional object (e.g., lamp, box) using wood or fabric. Create a mixed-media artwork that integrates at least three different materials.	3	LO5
6	Create a portfolio	Create a portfolio	2	LO6

Experiment Criteria

1. Creativity and Originality: Innovative use of design principles in assignments.
2. Execution: Precision, craftsmanship, and attention to detail in practical work.
3. Conceptual Clarity: Demonstration of advanced understanding through project narratives and presentations.
4. Integration: Application of Fundamentals of Design-I concepts in advanced tasks.

Instructions for Experiment:

- Assignments may be completed using traditional media (paper, paint, and materials.
- Each assignment will be evaluated based on creativity, understanding of concepts, and execution quality.
- Deadlines for each assignment will align with the corresponding module completion.

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work(limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
BSL202	Digitals Methods-II Lab	--	1	-	-	0.5	-	0.5

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (InHrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
BSL202	Digitals Methods-II Lab	--	--	-	--	--	25	--	25

Lab Objectives:

1. Learn basics of photography techniques.
2. Learn basics of videography techniques.
3. Understand image processing
4. Understand image processing
5. Create a video project
6. To learn video editing techniques

Lab Outcomes: Students will

1. Develop skill for 2D software tools
2. Use 2D Software Tools to Realize Design Intent
3. Use Photoshop
4. Use advanced photoshop techniques
5. Use Corel DRAW
6. Use Illustrator

Detailed Syllabus:

Sr. No	Module	Experiment Details	Hours	LO Mapping
1	Introduction to 2D Software Tools	Create a simple poster or flyer using 2D tools, focusing on layout, typography, and colour harmony.	2	LO1
2	Use of 2D Software Tools to Realize Design Intent	Design a branding package, including a logo, business card, and stationery layout.	2	LO2
3	Introduction to Photoshop	Create a digital collage using at least 5 images, demonstrating selection tools and blending modes. Edit an image to correct	2	LO3
4	Advanced Photoshop Techniques	Design a poster with advanced text effects and image manipulation. lighting and colors while removing unwanted objects	2	LO4
5	Introduction to Corel DRAW Introduction to Illustrator	Design a tri-fold brochure for a hypothetical product or service.	2	LO5
6	Create a multi-page	Create a multi-page catalog incorporating images, text, and vector elements.	3	LO6

Text Books and References:

1. "The Beginner's Photography Guide", 2nd Edition, DK, 2016.
2. London, B., Upton, J., & Stone J. (2010). Photography (10th ed.). Upper Saddle River, NY: Prentice Hall.
3. Digital Filmmaking for Beginners A Practical Guide to Video Production Apr 23, 2012, Michael K. Hughes, Publisher: McGraw-Hill Education TAB; 1 edition (April 23, 2012), ISBN-13: 978-0071791366
4. Videomaker. (2007). The Videomaker Guide to Video Production (4th ed.). Burlington, MA: Focal Press.
5. The Art of Photography
6. Ciaglia, Joseph, *Absolute Beginner's Guide to Digital Photography*
7. DSLR Photography for Beginners
8. Mark Sawicki, *Filming the Fantastic: A Guide to Visual Effects Cinematography*
9. Stephen M. Hockman, *Mastering Composition in Digital Photography*
10. Sean Cubitt, *Videography: Video Media as Art and Culture*

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
ESL201	Rendering and Illustration	--	2	-	-	1	-	1

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
ESL201	Rendering and Illustration	--	--	-	--	--	25	25	50

Lab Outcomes: Six Lab outcomes (Based on Blooms Taxonomy)

Prerequisite: Nil

DETAILED SYLLABUS: Syllabus related Lab experiment must be considered and mapped with Blooms Taxonomy. Total six modules for each subject and total 24 hours to be distributed among six modules.

Sr. No.	Module	Detailed Content	Hours	LO Mapping
0	Prerequisite	Nil	1	-
I	Introduction to Rendering	Types of drawing & rendering; Importance of rendering	4	LO1

II	Lights and its effects	Interaction with Light Highlights, shadow and reflection study of objects; Direct and indirect illumination	4	LO2
III	Photorealistic Visualization	Photorealistic Visualization, Rendering objects by observation, Rapid sketching techniques; Visual compositions of objects	4	LO3
IV	Digital techniques	Digital techniques in Rendering and Illustration Digital sketching; Vector illustrations; Raster	5	LO4
V	Illustrations	Introduction to Image processing softwares like Adobe, Corel Draw, Inkscape, GIMP; Digital Illustration Techniques Exposure and demonstration of Illustration and rendering software	5	LO5
VI	Importance of text in illustrations	Illustrations; Story telling by illustrations; Illustrated drawings	4	LO6

Text Books:

1. Rober McKim, Experiences in Visual Thinking, Brooks/Cole Publishing Company, 1980
2. Stephen Missal, Exploring Drawing for Animation (Design Exploration Series), Thomson Delmar Learning, 2003
3. K. Francis Ching, Design Drawing, John Wiley & Sons,1998
4. Tom Porter, Design Drawing techniques for architects, graphic designers and artists, Oxford Architectural Press, 1991
5. Terence Dalley, The complete guide to illustration & design, Phaidon, Oxford, 1980
6. T. C. Wang, Pencil Sketching, John Wiley & Sons,1997

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

List of Experiments:

1. Assignments on introduction to rendering
2. Assignments on lights and its effects
3. Assignments on photorealistic visualization
4. Assignments on digital techniques
5. Assignments on Illustrations
6. Assignments on importance of text in illustrations

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work (limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
PCL201	Program Core Lab-Overview of Design Process Lab	--	02	-	--	01	-	01

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
PCL201	Program Core Lab-Overview of Design Process Lab	-	-	-	-	-	25	25	50

Lab Objectives:

1. Understand the Design Thinking Framework
2. Use Research Methods
3. Use Concept Generation and Ideation
4. Use Prototyping and Testing
5. Understand Visual Communication and Design Principles
6. Collaborate and Teamwork

Lab Outcomes:

Sr. No.	Lab Outcomes
The course aims:	
1	Understand design principles
2	Study new principles of design
3	Study design principles and aesthetic Bias
4	
5	Understand Fibonacci Sequence
6	Study psychology and aesthetics

	Human Factors

DETAILEDSYLLABUS:

Sr. No.	Module	Detailed Content	Hours
01	Less is More	Find examples of Less is More design principles and create digital samples embedded	**04**
02	Design Process	Find examples of Design Process design principles and create digital samples embedded	**04**
03	Aesthetic Bias	Find examples of Aesthetic Bias design principles, Find examples of Aesthetic Bias design principles	**05**
04	Dimensional Perception	Find examples of Dimensional Perception Preferences design principles and create digital samples embedded	**04**
05	Psychology and Aesthetics design	Find examples of Psychology and Aesthetics design principles and create digital samples embedded	**05**
06	Human Factors design	Find examples of Human Factors design principles and send digital samples and create digital samples embedded	**04**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books:

1. **"Design Basics"** by David A. Lauer and Stephen Pentak – Wadsworth Publishing.
2. **"Interaction of Color"** by Josef Albers – Yale University Press.
3. **"Principles of Form and Design"** by Wucius Wong – Wiley.
4. **"The Elements of Graphic Design"** by Alex W. White – Allworth Press.

5. **"Typography Essentials: 100 Design Principles for Working with Type"** by Ina Saltz – Rockport Publishers.

6. **"Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students"** by Ellen Lupton – Princeton Architectural Press.

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work(limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
CC201	Social Science and Community Services		2*+2	-		2	-	2

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment (IAT)			End Sem Exam	Exam Duration (in Hrs)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
CC201	Social Science and Community Services	_	__	-__	__	_	25	--	25

Rationale: This group of activities is to support Individual Interest, Skill utilization and desire to contribute towards social welfare and discharge a duty of good citizen. Activities offered are based

on based on diverse scope, ranging from social activities and services, training as a volunteer at the time of National Emergencies, Training volunteer take part at National level campaign in the field of science and technology.

Course Objectives:

- Understanding knowledge from a range of disciplines
- Connecting knowledge to other knowledge, ideas, and experiences
- Constructing knowledge
- Relating knowledge to daily life
- Critical thinking
- Reflective thinking
- Effective reasoning
- Creativity

Course Outcomes:

1) Communicateeffectivelyverballyandinwritingbyselectingpropercontent,tone,and demeanor for the situation
2) Demonstrationeffectiveuseoftechnologyforpersonalandprofessionalactivities,including electronic communication and information resources
3) Develop and actively pursue personal, academic and professional goals
4) Seekguidanceandassistanceasneededtoachieveacademicsuccess,maintaingood academic standing and progress toward a degree
5) Managepersonalaffairsbydemonstratingempathytowardothers,caringforone'sselfand seeking assistance as needed
6) Demonstrateprofessionalismtowardpeers,faculty,staff,employersandothermembersof the College community through social etiquette, effective communication and restraint

Available Choice (Any One)	**Available at**	**Guided By**	**Evaluation at**
NSS	**College/Cluster**	**University NSS Coordinator**	**Institute***
NCC	**College/Cluster**	**University/State level NCC core**	**Institute***
Civil Defense	**College/Cluster**	**State/ local Governance Civil defense Unit**	**Institute***
Amateur radio	**College/Cluster /Coordinated**	**Local/Cluster/ University level Coordinator**	**Institute***

By Coordinator/ program officer assigned at institute level

DETAILED GUIDEL INE:

1) For NSS/NCC

The students shall earn marks for all relevant activities, which include Sport sand Games, NCC, and NSS etc. Every student opted for NSS is expected to participate in the program for a minimum of 120 hours in a semester to become eligible for the credit. Every time the student participates / completes a task, the same is entered in the attendance register meant for the purpose and to be certified by the concerned Head and the Academic Coordinator, at the end of the semester, the student shall be awarded marks for participation as devised for the respective program.

Assessment: (Towards term work)

Evaluation Pattern for Participation

Sr. No	Particulars	Max marks
1	Attendance & Routine Activities	05
2	Participation in Camps / Field Activity	10
3	Brief Report	10
	Total	25

2)For Civil Defense

Civil Defense offers members the opportunity to train in a variety of skills and to learn new techniques that will not only assist your local community in the even to fan emergency but will also enhance your own personal development. All training is given by experienced instructors and is certified to national standards. Casualty Service–training for First Aid, Rescue Service–training for Rescue. Fire Fighting Service – training in certain areas of firefighting. Pumping floodwaters and supplying water and emergency services for support to the community.

The activity can be started at college level/ Cluster level by coordinating with the local Civil defense center. Training will be arranged by the Local civil defense center set up by the Directorate of civil defense, Maharashtra state in the region of College/ Cluster. A Civil Defense unit can be established by a Coordinator assigned amongst the desiring faculty member at college / cluster level.

OBJECTIVES OF CIVIL DEFENCE UNIT

a. To enable students to identify social issues and their solutions.

b. To develop self discipline and a helping attitude among the students.

c. To make students responsible citizens for protection of the environment.

d. To implement government programs and policies among people.

e. To prepare students to give scientific aid in natural and manmade disaster

Online References:

Sr. No.	Website Name
1.	https://www.maharashtracdhg.gov.in/cde/index.php
2.	https://dgfscdhg.gov.in/training-0
3.	https://dgcd.assam.gov.in/sites/default/files/swf_utility_folder/departments/cdhg_webcomindia_org_oid_5/menu/information_and_services/eligibility_criteria_to_apply_for_civil_defence_0_5.pdf

Assessment: (Towards term work)

Evaluation Pattern for Participation

Sr. No	Particulars	Max marks
1	**Attendance & Routine Activities**	**05**
2	**Participation in Training**	**10**
3	**Field demonstration/presentation**	**10**
	Total	**25**

3) **For Amateur Radio**

Amateur Radio is a scientific activity popularly known as"Ham Radio". Amateur radio operators use two way radio stations and communicate with others similarly authorized using various modes of communication like voice, morse code, computers ,internet etc.The things that amateur radio operators do with their radios are as diverse as the people themselves. The advanced amateur radio communication techniques include Automatic Position Reporting Systems using GPS information, Internet linking of Repeater stations, Interface with internet forex change of emails , images etc as well as visual communication modes.

Amateur (HAM) Radio is both a Hobby activity and Service. It is an activity of self learning, inter-communication & technical investigation carried on the duly authorized persons (i.e. Amateur Radio Operators) for a personal aim and without pecuniary interest. A wireless communication network through Amateur Radio is one of the most effective and alternate medium of communication and can play a significant role in providing reliable communications when other normal communications fail. The skills of the trained amateur radio operator can be used for public service in times of need and national emergencies.

ForparticipationinISROprogramsforstudentsatellitesandtoactasavolunteerforradiomonitoring of space missions, owning an Amateur (HAM) Radio operators certification is a legal and technical essential condition.

The Activity can be started at college level or at University inducted Nodal Centers. Interested faculties can be assigned a role of coordinator and enroll students for becoming Radio enthusiasts.

Online References:

Sr. No.	**Web site Name**
1	https://vigyanprasar.gov.in/science-communication-programs/ham-radio/
2	https://www.isro.gov.in/HAMSAT.htmlhttps://www.isro.gov.in/HAMSAT.html
3.	https://amsatindia.org/

Assessment: (Towards term work)

Evaluation Pattern for Participation

Sr. No.	**Particulars**	**Max marks**
1	**Attendance & Routine Activities**	**05**
2	**Participation in Training sessions & progress**	**15**
3	**Technical report/ field activity**	**05**
	Total	**25**

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
IKS201	Indian Knowledge System	2*	--	-	-	2*	-	--

		Theory					Term work	Pract /Oral	Total
		Internal Assessment (IAT)			End Sem Exam	Exam Duration (inHrs)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
IKS201	Indian Knowledge System	-	-	-	-	-	--	--	--

Rationale:

The Indian Knowledge System (IKS) is vital for preserving India's rich cultural heritage, fostering holistic and sustainable practices, and integrating ancient wisdom with modern science to address contemporary challenges and enrich global knowledge.

Course Objectives:

1. To explore and understand the evolution of Indian scientific thought
2. To evaluate the historical and modern educational systems in our country
3. To analyze sustainable practices in ancient India
4. To know the richness of Indian Arts and Culture
5. To understand the contributions of Indian Scientists and Nobel Laureates
6. To understand the principles of good governance

Course Outcomes:

1. Recognize the sources and concepts of the Indian knowledge system
2. Learn about our history of Indian ancient knowledge and its significance in the current scenario.
3. Demonstrate sustainable development in various fields like Science,Technology,agriculture, industry, architecture performing arts, etc.
4. Understand and appreciate the rich heritage that resides in literature
5. Learn about the ancient Bhartiya education system in comparison with the modern era
6. Showcase the multi-dimensional nature of IKS and its importance in modern society

Prerequisite:

1. Students should have the foundational knowledge and skills necessary for a comprehensive understanding of IKS

2. Students should be familiar with the Indian Culture, Language and History of Science and Technology in India.

DETAILEDSYLLABUS:

Sr. No.	Name of Module	Detailed Content	Hours	CO Mapping
I	**Introduction to the Indian Knowledge System (I.K.S.)**	• Basic knowledge and scope of IKS • IKS in ancient India and modern India, • Bhartiya education system–ancient to modern era, • Sources of Education, Aim of Education, Curriculum, methods of learning, • Educational Institutes, Higher Educational Institutions, • Advantages and Disadvantages of the Gurukul System, • Distinguish between the Gurukul system And the Modern Education System	**3**	**CO2**
II	**Development of Scientific Thoughts in Ancient India**	• Development in Science, Technology, Astronomy, Mathematics ,and Life Sciences – Life Science, Physiology, Ayurveda, etc.	**4**	**CO1**
III	**Development of Arts& Culture in India**	• Introduction to Ancient Architecture (Arts, Forts, Paintings, Sculpture, Temple architecture, etc) • Development in performing arts & culture: Music, Art of singing, Art of dancing, Natyakala Cultural traditions and Folk arts	**5**	**CO4**
IV	**Good Governance in Ancient India**	• Introduction to Indian religions • Moral and Ethical Governance • Vishva Kalyan through Vasudhaiva Kutumbkam • Principles of Good Governance about Ramayana, Mahabharat,ArthaSastraand Kauṭilyan State	**5**	**CO6**
V	**Contribution of Indian Scientist & Nobel**	• Baudhayan, Aryabhatta, Brahmgupta, Bhaskaracharya, Varahamihira, Nagarjuna, Susruta, Kanada & Charak	**5**	**CO5**

	Laureates	• Rabindranath Tagore, C.V. Raman, Har Gobind Khorana, Mother Teresa, Subrahmanyan Chandrasekhar, Amartya Sen, V.S. Naipaul, Venkatraman Ramakrishnan, Kailash Satyarthi and Abhijit Banerjee		
V I	**Sustainable Practices in Ancient India**	• Agriculture, waste management, water conservation, forest conservation, architecture, urban planning, biodiversity preservation, etc. • Yoga, pranayama, and meditation for health and well-being	**4**	**CO3**

Text Books:

1. A.K Bag, History of technology in India(Set3vol),Indian Nation Science Academy, 1997.
2. An Introduction to Indian Knowledge Systems: Concepts and Applications, B Mahadevan, V R Bhat, and Nagendra Pavana R N; 2022 (Prentice Hall of India).
3. Ancient Indian Knowledge: Implications To EducationSystem,BoskiSingh;2019
4. India's Glorious Scientific Tradition by Suresh Soni; 2010(Ocean Books Pvt. Ltd.)
5. Indian Art: Forms, Concerns, and Development in Historical Perspective (History of Science, Philosophy and Culture in Indian Civilization),General Editor:D.P. Chattopadhyaya, Ed. By. B.N.Goswamy;1999 Munshiram Manoharlal Publishers Pvt.Ltd.
6. Indian Knowledge Systems :Vol I and II, Kapil Kapoor and AKSingh;2005(D.K. Print World Ltd).
7. Pandey, K .K. Kriya Sarira Comprehensive Human Physiology, Chaukhambha Sanskrit series, Varanasi, 2018
8. Shukla Vidyadhar & Tripathi Ravidatt, Aayurvedka Itihasevam Parichay, Chaukhambha Sanskrit Sansthaan, New Delhi, 2017
9. Textbook on The Knowledge System of Bharata by Bhag Chand Chauhan; 2023 (Garuda Prakashan) 6.PrideofIndia-A Glimpse of India's Scientific Heritage edited by Pradeep Kohle et al. Samskrit Bharati; 2006
10. Traditional Knowledge System in India, Amit Jha

Online References:

Sr. No.	Website Name
1.	https://swayam.gov.in/explorer?searchText=iks
2.	https://iksindia.org/book-list.php
3.	https://iksindia.org/index.php

Assessment:

Suggested Pedagogy and assessment criteria for Teachers:

1. Project-based activities.
2. Presentation, Group Discussions, and Case studies.
3. Visit historical places.
4. Flip class mode/Role play
5. Quiz MCQ
6. Assignment as per the modules:06
7. Internal Assessment through flipped class and Power Point presentation along with documentation

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
IKS201	**Indian Knowledge System**	**-**	2*+2	**-**	**-**	**2*+2**	**-**	**2**

Course Code	Course Name	Examination Scheme						
		Theory Marks				Term Work	Practical/ Oral	Total
		Internal assessment (IAT)			End Sem. Exam			
		IAT-I	IAT-II	IAT-I+ ITA-II (Total)				
IKS201	Indian Knowledge System	--	--	--	--	25	-	25

Objectives:

To provide practice in….

1. UnderstandingTraditionalIndianKnowledgeSystemsthathaveevolvedinIndiaover centuries
2. Learn practical applications of traditional Indian techniques in various fields
3. Promote the cultural heritage in Indian knowledge systems,
4. DevelopskillstocriticallyanalyzeIndianknowledgesystemsincontemporarycontexts, assessing their relevance, strengths, and limitations.
5. AnalyzeinterdisciplinaryconnectionsbetweenIndianknowledgesystemsandmodern scientific & technological advancements.
6. Apply communication&collaborativeabilitiesthroughgroupdiscussionsorpresentations focusing on specific aspects of Indian knowledge systems.

Outcomes:

Learners will be able to

1. Learn about the evolution and practices of major Indian religions
2. Gain insight into the cultural diversity of India through its art, literature, music, dance, and architecture.
3. Recognize India's historical contributions to fields such as mathematics astronomy, medicine, and technology.
4. Develop critical ability to evaluate different interpretations of Indian knowledge systems in academics, literature, media, and popular culture.
5. Analyze how Indian philosophical and spiritual ideas have influenced global thought
6. Understand the relevance of Indian knowledge systems in contemporary contexts, including their role in shaping social values, ethics, and sustainable practices.

Sr No	Details of Activities	Hrs
01	Project-based activities	02
02	Presentation	02
03	Case studies	02
04	Visit historical places and write a report	02
05	Flip class mode	02
06	Quiz with MCQ	02
07	ComparativeStudyofIKS&otherphilosophical&scientificsystemsaroundthe world	02
08	Group Discussions	02
09	Role play	02
10	Self-study activities	02

(The faculty can choose any of these activities for continuous assessment)

Assessment:

Suggested Pedagogy and assessment criteria for Teachers:

1. Total Assignments as per the modules:06
2. InternalAssessmentthroughflippedclassandPowerPointPresentationalongwith documentation

- **Sample Case Studies:**
  - Mathematics of Madhava, Nilakantha Somayaji
  - Astronomical models of Aryabhata
  - Wootz steel, Aranumula Mirrors, and lost wax process for bronze castings
  - Foundational aspects of Ayurveda
  - Foundational aspects of Ashtangayoga
  - Foundational aspects of Sangeeta and Natya-shastra

Term Work:

- Assignments:10 Marks
- Presentation/GroupDiscussion:10Marks
- Attendance:05 Marks

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
VSEC201	Social Media Lab	--	2	-	-	01	-	01

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
VSEC201	Social Media Lab	--	--	-	--	--	25	--	25

Lab objectives: Students will be able to

1. Learn platform knowledge
2. Understand Audience analysis
3. Acquires knowledge of Content creation
4. Create Social media strategy
5. Learn Social media advertising
6. Understand Analytics and reporting

Lab Outcomes: Six Lab outcomes (Based on Blooms Taxonomy)

1. To introduce social media to the students
2. To study types of social media: Content Creation and Curation
3. To understand impact of social media Internet
4. To use social media analytics and measurement
5. To understand social media advertising and paid campaigns:
6. To use social media ethics and legal considerations

Prerequisite: Nil

DETAILED SYLLABUS: Syllabus related Lab experiment must be considered and mapped with Blooms Taxonomy. Total six module for each subject and total 24 hours to be distributed among six modules.

Sr. No.	Module	Detailed Content	Hours	LO Mapping
0	Prerequisite	Nil	1	-
I	Introduction to Social Media:	Definition and evolution of social media, Key social media platforms and their unique features, Social media landscape analysis, and Understanding user behavior and demographics. Social Media- a new paradigm The Digital Experience - mobile, cyberspace, online apps. Social Media Technologies & Applications, Digitization of media	4	LO1
II	Types of Social Media: Content Creation and Curation	Facebook, Twitter, LinkedIn, Instagram. Social media practices Blogging, social bookmarking, Building communities-pages & Channel, Hangouts Types of social media content (text, images, videos, info graphics) Content marketing principles and best practices Storytelling techniques for social media Visual design and branding considerations	4	LO2
III	Impact of social media Internet	Impact of social media Internet/Online activism Citizen Journalism Cybercrime Democratization/Digital Divide Audience analysis & Content planning	4	LO3
IV	Social Media Analytics and Measurement	Key performance indicators (KPIs) for social media Monitoring and analysing social media data	4	LO4

		Reporting and interpreting social media metrics		
V	Social Media Advertising and Paid Campaigns:	Social media advertising options on different platforms Targeting options and audience segmentation Campaign creation, budgeting, and optimization	4	LO5
VI	Social Media Ethics and Legal Considerations	Privacy concerns and data protection, Copyright and intellectual property issues, and Crisis communication on social media. Hands-on Practice and Project-Based Learning: Creating and managing social media accounts for a real or simulated brand Developing and executing social media campaigns Analyzing data and reporting on social media performance	4	LO6

Text Books:

1. Social Media Marketing: by Tracy L. Tuten and Michael R. Solomon
2. Social Media Analytics: by Avinash Kaushik
3. Digital Marketing Strategy: by David Meerman Scott
4. Social Media ROI: by Oliver Blanchar
5. The Like Economy by Adam Alter
6. The Social Dilemma by Tristan Harries

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

List of Experiments;

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work (limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
VSEC202	Design Studio	2*+2	-	-	-	02	-	02

Course Code	Course Name	Theory					Term work	Pract / Oral	Total
		Internal Assessment Test(IAT)			End Sem Exam	Exam Duration (In Hrs.)			
		IAT-I	IAT-II	IAT-I+ IAT-II (Total)					
VSEC202	Design Studio	--	---	--	--	--	25	25	50

*Two hours of practical class to be conducted fo full class as demo/discussion

Lab Objectives:

Students will be able to

1. Understand user centric design.
2. Understanding process of design.
3. Obtain knowledge and ability to identify problems faced by the user.
4. Finalize design process
5. Creative & Ideate
6. Design a portfolio

Lab Objectives:

Sr. No.	COURSE OBJECTIVES
The course aims:	
1	To produce visual and verbal presentations.
2	To analyze, justify, and rate applications of concepts
3	To observe and experience how people from diverse background identify their needs and the constraints they face solving them
4	To apply the design process to identify the Need of the target audience
5.	To apply sustainable practices in everyday life.
6.	To create a portfolio

DETAILEDSYLLABUS:

Sr. No.	Module	Detailed Content	Hours	CO Mapping
01	Creative & Ideation Method	Creative & Ideation Method-Brain storming & lateral thinking	**04**	**CO1**
02	Design Exploration & Concepts	Design Exploration & Concepts	**04**	**CO2**
03	Exposure to outer world in term of ideation	Exposure to outer world in term of ideation	**04**	**CO3**
04	Drafting of creative solution & creating a virtual out of planning.	Drafting of creative solution & creating a virtual out of planning.	**04**	**CO4**
05	Finalize the Design & creating in Portfolio	Finalize the Design & creating in Portfolio	**05**	**CO5**

06	Finalize the Design & creating in Portfolio	Finalize the Design & creating in Portfolio	**05**	**CO6**

Online References:

Sr. No.	Website Name
1.	https://www.nptel.ac.in
2.	https://www.coursera.org/courses?query=design
3.	https://www.udemy.com/courses/design/
4.	https://www.edx.org/learn/design
5.	https://www.udacity.com/course/product-design--ud509
6.	https://www.simplilearn.com/

Text Books:

1. Hauffe, Thomas; Design, Publisher: Barron's Educational Series, 1996
2. Bill Lucas (Author), Ellen Spencer (Author), Publisher: Crown House Publishing
3. Teaching Creative Thinking: – December 19, 2017
4. D. Norman; The Design of Everyday things, London, The MIT Press, 1998
5. Potter, Norman; What Is a Designer: Things, Places, Messages, Princeton Architectural Press, 2002

Note: Suggested List of Experiments is indicative. However, flexibility lies with individual course instructors to design and introduce new, innovative and challenging experiments / Lab work(limited to maximum 30% variation to the suggested list) from within the curriculum, so that the fundamentals and applications can be explored to give greater clarity to the students and they can be motivated to think differently.