



**Faculty of Architecture & Planning**

**Syllabus**

**For**

**BACHELOR OF DESIGN**

***(Program Code: .....)***

**(2020-21)**

*\*Approved by the Academic Council vide resolution no .....*

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## **1. INTRODUCTION (B.DES.CURRICULUM)**

The University presently offers 4-Year B.Des. course in User Experience (UX). The main objective of this programme is to groom the students to develop ability for critical thinking and analysis through hands on practice through case studies, project work and working in industry/ organizations. The first year of the program is foundation courses with a blend of UX and technology. Third semester onwards the students undergo advanced studies and enhance their skills in UX.

### **I. Bachelor of Design Highlights In Tabular Form:**

Course level	Undergraduate
Duration	4 years
Examination type	Semester system
Eligibility	10+2 with 50% marks

To become a UX Designer, interested candidates need to have a rational and artistic bent of mind along with problem-solving abilities. The career scope of B.Des. graduates in India is tremendous with the flourishing UI/UX sector. A qualified B.Des. graduate has the option to choose their line of work from a range of areas ranging from UX researcher to UI developer.

### **II. Eligibility And Top Entrance Exams:**

To study a full-time B.Des. programme, students must fulfill the eligibility requirements given below:

An applicant who has successfully completed Senior Secondary School course ('+2') with Science, Commerce, Arts or equivalent from a Senior Secondary Board or equivalent, constituted or recognized by the Union or by the State Government., may apply for admission into the course.

Provided that applicants who have obtained +2 Higher Secondary Pass Certificate with Science, Commerce, Arts or equivalent certificate after prosecuting studies in distance or correspondence method shall also be considered as eligible for admission in B.Des Programme .

Explanation: The applicants who have obtained 10 + 2 through Open University system directly without having any basic qualification for prosecuting such studies are not eligible for admission in the B.Des Programme.

## **2. LEARNING OUTCOMES-BASED APPROACH TO CURRICULUM PLANNING AND DEVELOPMENT:(LOACPD)**

Following illustrates nature of study, program objectives and learning outcome for the course.

### **I. Nature and extent of Bachelor of Design:**

Bachelor of Design is the course where students progressively learn how to identify a gap area in a product or service and solve the same with intensive research methodologies and human centric Design process.

The profession/practice of UI/UX Designer encompasses the provision/delivery of services in relation with the Designing interfaces, applying research methods and methodologies, building innovative and human centric designs, feasible and viable design solutions to wicked problems for emerging technologies.

### **II. Aims of Bachelor's Degree Programme in Bachelor of Design:**

The B.Design subject engages students with people from any stream. The course provides an introduction to the fundamentals of design and research methods and methodologies along with the how to design interfaces that are digitally sustainable and human centric. On completion of the subject, students will gain a basic understanding of the UI/UX

process and be able to implement the techniques such as brainstorming, design thinking, empathy mapping to solve the wicked design problems around the globe.

### III. Motive behind curriculum planning and development

The committee considered and discussed the following factors for LOCF for the graduates:

- i. Framing of syllabi
- ii. Learners attributes
- iii. Qualification descriptors
- iv. Programme learning outcomes
- v. Course learning outcomes
- vi. Necessity of having elective courses
- vii. Academic standards

### 3. PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The objectives of the 4-year Bachelor of Design program are aimed at integrating knowledge based and skill based pedagogies in a balanced manner, essential to enable the students to become responsive and sensitive Designers. With this in mind the overall objectives of the Learning Outcomes- based Curriculum Framework (LOCF) for Bachelor of Design degree are:

**PEO1:** Understanding the basic philosophy and fundamental principles of the multidimensional aspects and multi-faceted nature of UI/UX Design.

**PEO2:** Preparing the students to acquire and enhance creative problem solving skills including critical thinking and assessment and developing design concepts and solutions and presentation of these skills.

**PEO3:** Performing standard proficiencies, in harmony with the local culture and norms prevalent with the UI/UX Design in particular and the global practice in general i.e. making the student market ready or employable.

**PEO4:** Preparing the students to work effectively in a multi-disciplinary/inter-disciplinary/diverse/ geographically dispersed team in the UI/UX industry, by providing 360o knowledge of UI/UX Design.

### 4. GRADUATE ATTRIBUTES (GAs):

The graduate attributes in Bachelor of Design are the summation of the expected course learning outcomes mentioned in the end of each course. Some of them are stated below.

**GA1: Information, literacy, learning and research skills:** Ability to use information effectively in a range of contexts and create new knowledge and understanding through writing and literacy skills and the process of research and inquiry.

**GA2: Conceptual Skills:** Ability to intellectual, relation between theory and practice or aesthetics & Proportions.

**GA3: Interpersonal Skills:** Ability to communication skills. Compassionate and physically, mentally & spiritually Fit.

**GA4: Technical skills and knowledge:** Ability to use engage with and draw upon extensive technical knowledge and skills effectively, efficiently and professionally across a range of contexts and disciplines.

**GA5: Documentation, techniques of representation and communication:** Ability to recognize and value communication as a tool for negotiating and creating new understanding, interacting with others, and furthering their own learning.

- GA6: Problem-solving, design, and/or planning:** Ability to critically and creatively design, innovate and solve problems using diverse skills and knowledge in a range of contexts.
- GA7: Theoretical, social and/or historic engagement:** Ability to critically and contextually draw upon an extensive body of historical theoretical, social and political knowledge when thinking through ideas and issues.
- GA8: Professionalism: Social and environmental ethics:** Ability to hold personal values and beliefs consistent with their role as responsible members of local, national, international and professional communities.
- GA9: Professionalism: Collaboration and practice:** Ability to have an understanding of collaborative practice and professional procedure, financial, legal and practice management.
- GA10: Additional Traits:** Not Greedy, Generous, Master of Senses, Honest, Straight Forward, Just (*Nyaya Priya*), Unbiased, Free from seven vices, Attentive.

## 5. QUALIFICATION DESCRIPTORS(QDs):

A qualification descriptor of B.DESIGN undergraduate programme indicates the generic outcomes and graduate attributes expected for the award of the Bachelor of Design. Qualification descriptors also describe the academic standard for a specific qualification in terms of the

- i. levels of knowledge
- ii. understanding,
- iii. skills and
- iv. competencies
- v. attitudes
- vi. values

That the holders of the qualification are expected to attain and demonstrate, in terms of actual outputs after acquiring B.DESIGN degree. These descriptors also indicate the common academic standards for the qualification and help the degree-awarding bodies in designing, approving, assessing and reviewing academic programmes. The learning experiences and assessment procedures are designed to provide every student with the opportunity to achieve the Intended Learning Outcomes (ILO). The qualification descriptors reflect both disciplinary knowledge, professional skills and understanding design. The students who will complete four years of full-time study of an undergraduate programme of B.DESIGN will be awarded a Bachelor's Degree. Some of the expected learning outcomes that a student should be able to demonstrate on completion of a degree-level programme include the following:

- i. Develop research and analytical skills to assist in the identification of essential design problems to inform the design process.
- ii. Communicate design proposals using a variety of media such as low and high fidelity wireframes and prototypes.
- iii. Building User centric design solutions by taking into account the mental model of users prepared from different methods like card sorting, mind mapping, design thinking etc.
- iv. Develop the interaction design of the digital product that would build the efficiencies in the digital processes and Create usefulness, effectiveness and learnability of the digital product.
- v. Prepare design documentation for the purpose of the engineers and product managers to code the digital product.

## 6. PROGRAMME LEARNING OUTCOMES(POs)

The objectives of the program are translated into a number of learning outcomes. These outcomes are directly related to the profession of UI/UX Designer, the way it is practiced in the country and the knowledge components that are necessary for such professional practice. Towards the end, the students who complete this program will possess the ability to:

- PO1:** Understand the problems faced by users with products and services and recognize the dialectic relationship between people and the ecosystem of products with reference to their challenges, needs, interaction, and frequency of using it.
- PO2:** Work collaboratively toward synthetic design resolution which integrates an understanding of the requirements, contextual and digital connections, and technological systems with responsible approach to Digital sustainability.
- PO3:** Apply visual communication skills such as Typography, Iconography etc. at various stages of the design and delivery process.
- PO4:** Thrive in a rigorous intellectual climate which promotes inquiry through design research.
- PO5:** Produce professional quality graphic presentations and technical drawings/documents reflecting their software skills primarily.
- PO6:** Critically analyze Prototype designs and conduct usability testing before the development of a solution.
- PO7:** Work in a manner that is consistent with the accepted professional standards and ethical responsibilities.
- PO8:** Work in collaboration with and as an integral member of multi-disciplinary/interdisciplinary design and execution teams in the UI/UX industry.
- PO9:** Conduct independent and various research methods such as survey, structured interview etc. to gather information related to the problems faced by users.
- PO10:** Students able to work effectively in a multi-disciplinary/inter-disciplinary team in the UI/UX industry, by providing holistic knowledge of Design process.

### Mapping of Graduate Attributes (GAs) and Programme Learning Outcomes (POs):

	GA1	GA2	GA3	GA4	GA5	GA6	GA7	GA8	GA9	GA10
<b>PO1</b>										
<b>PO2</b>										
<b>PO3</b>										
<b>PO4</b>										
<b>PO5</b>										
<b>PO6</b>										
<b>PO7</b>										
<b>PO8</b>										
<b>PO9</b>										
<b>PO10</b>										

## 7. PROGRAM SPECIFIC OUTCOMES (PSOs)

- PSO1:** Demonstrate critical thinking through a self-reflective process of conceptualization and design thinking that is open to consideration of alternative perspectives by analyzing, evaluating, and synthesizing ideas and information gathered through applied research grounded in information literacy.
- PSO2:** Implement complex two and three-dimensional graphic representation techniques using a wide variety of traditional and digital media, to reflect on and explain the UI/ UX design process to a wide range of stakeholders.
- PSO3:** The knowledge and ability to apply a design decision-making process through appropriate technical documentation in a manner that is client-centered, sustainable, aesthetic, cost effective, and socially responsible.

### Subject Coding:

Simplified Coding pattern is generated to identify the semester, subject number, whether the subject is core or elective and whether the subject is theory or studio. The coding is composed of alpha & numeric characters. First characters 'Alpha & numeric' indicate the abbreviation of B.DESIGN. Course (BD). Then numeric indicating semester, last numeric characters indicate the subject sequence in the semester (theory or sessional).

For example –BD101

All subjects have different components like L-lecture, T-tutorial, P-practical/studio and all are given equivalent credits as per the contact hours. These components are defined as below:

**Lecture (L):** Lecture is a one-way mode of transferring information/ concepts/ theory to students, usually delivered by an instructor. To check the understanding of concepts, frequent tests and quizzes are supplemented with lecture.

**Tutorial (T):** For completing class assignments, one-to-one practice sessions conducted by and with faculty member(s) are tutorials.

**Practical/ Studio (P/S):** Practical / Studios are sessions where students use various mediums and modes to define real life problem(s) and solution(s) for the same, individually or in a group.

The curriculum includes professional training in the eight & ninth semester. This is given equivalent credit compared to a regular semester, based on the professional training received in equivalent contact hours.

## 8. TYPES OF COURSES

1. Courses in a programme may be of four kinds: Core, Elective, Ability Enhancement and Skill Enhancement.

### a) Core Course:-

There may be a Core Course in every semester. This is the course which is to be compulsorily studied by a student as a requirement to complete the programme in a said discipline of study.

### b) Elective Course:-

Elective course is a course which can be chosen from a pool of papers. It may be

- Supportive to the discipline of study
- Providing an expanded scope
- Enabling an exposure to some other discipline/domain

- Nurturing student's proficiency/skill.

An Elective Course may be 'Discipline Centric/Specific' & Generic Elective

- (i) **Discipline Centric/Specific Elective (DSE):** Elective courses offered under the main discipline/subject of study is referred to as Discipline Centric/Specific.
- (ii) **Generic/Open Elective (GE):** An elective course chosen from an unrelated discipline/subject is called Generic/Open Elective. These electives will be focusing on those courses which add generic proficiency of students.

**c) Ability Enhancement Compulsory Courses(AECC):-**

AECC courses are based upon the content that leads to knowledge enhancement, for example: English Communication, Environment Science/ Studies, etc.

**d) Skill Enhancement Courses(SEC):-**

SEC Courses provide value based and/or skill based knowledge and may contain both Theory and Lab/Training/Field Work. The main purpose of these courses is to provide students life- skills in hands- on mode so as to increase their employability.

**2. List of Papers (B.Design)**

**Core Papers:**

- Fundamentals of Design
- Introduction to UX Design
- History of Art and Evolution of Design
- Introduction to Visual Design
- Design communication & Visualizing Ideas
- Empathy and understanding problems
- Technology in Experience Design
- UX Design Advance
- Ethnography and people Design
- Introduction to User Research
- Service Design and task flow
- Information Architecture
- Introduction to UI Design
- Service Design and task flow advance
- Introduction to interaction design
- UI Design Advance
- Wire framing and Prototyping
- Technology in Experience design Advance
- Omni channel experience design
- Interaction design Advance
- Introduction to 6D
- UX Design for futuristic Technologies
- UX Design for Rural India
- Gamification and UX Design



- Business UX and Design Management
- Live Project
- Degree Project

**Elective Papers:**

***Discipline Centric/Specific Elective (DSE):***

**Semester 5 (Any Two)**

- Innovation Management
- Culture and design
- Applied Ergonomics
- Sustainable Design

**Semester 6 (Any Two)**

- UX Design forWeb
- UX Design forMobile
- UX Design forHMI
- UX Design for PhysicalProduct
- Professional Skills (Career and Team)

**Semester 7 (Any Two)**

- Human Machine Interface
- Designing forWearables
- Designing for smartTVs
- Designing forIOT

***Generic/Open Elective (GE):***

- Painting
- Photography
- Clay Modelling
- Paper Modelling
- Leadership and Management Skills

**Ability Enhancement Compulsory Courses (AECC):**

- Visual Design tools
- Basics of UI Development
- Integrated studio for UX
- Design Thinking
- Information and Data Study
- User Research Application
- Design thinking application
- Data Analytics
- Usability testing
- UX & Digitalization

- Product design and lifecycle management
- Communication skills

**Skill Enhancement Courses papers (SEC):-**

- Sketching and Drawing
- Sketching and Drawing Advance
- Visual Design tools Advance
- UI Development Advance
- Integrated studio for UX design Advance
- Universal Human Values
- Industry Specific UX Design

**Computation of Workload:**

<b>Lecture (L) :</b>	1 Credit = 1 Theory period of one hour duration
<b>Tutorial (T) :</b>	1 Credit = 1 Tutorial period of one hour duration
<b>Practical (P) :</b>	1 Credit = 1 Practical period of two hour duration

**9. PROGRAM STRUCTURE (B.DES.)****SCHEME OF B.DESIGN**

B. Design, Semester-I, I yr. (4 yrs. Degree Course)

**THEORY**

S. No.	Code	Subjects	Type	Internal Marks	External Marks	Total Marks	L	T	Credits
1	BD101 HE	History of Art and Evolution of Design	CORE	30	70	100	4	0	4
		<b>SUB TOTAL</b>		<b>30</b>	<b>70</b>	<b>100</b>	<b>4</b>	<b>0</b>	<b>4</b>

**SESSIONAL**

S. No.	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD102 SD	Sketching and Drawing	SEC	60	40	100	2	4	4
2	BD103 FOD	Fundamentals of Design	CORE	60	40	100	3	2	4
3	BD104 IUXD	Introduction to UX Design	CORE	60	40	100	3	2	4
4	BD105 IVD	Introduction to visual Design	CORE	60	40	100	3	2	4
5	BD106 DV	Design communication and Visualizing ideas	CORE	60	40	100	2	2	3
6	BD107 EUP	Empathy and understanding problems	CORE	60	40	100	2	2	3
7	BD 108 CS	Communication skills	AECC	60	40	100	2	0	2
8	BD109	ANANDAM	AECC	60	40	100	1	1	2
		<b>SUB TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>18</b>	<b>15</b>	<b>26</b>
		<b>GRAND TOTAL</b>		<b>510</b>	<b>390</b>	<b>900</b>	<b>22</b>	<b>15</b>	<b>30</b>

**B. Design, Semester-II, I yr. (4 yrs. Degree Course)****SESSIONAL**

<b>S. No</b>	<b>Code</b>	<b>Subjects</b>	<b>Type</b>	<b>Internal Marks</b>	<b>End Term Ass.</b>	<b>Total Marks</b>	<b>L</b>	<b>S</b>	<b>Credits</b>
1	BD201 SD-A	Sketching and Drawing Advance	SEC	60	40	100	2	4	4
2	BD202 TED	Technology in Experience Design	CORE	60	40	100	4	2	5
3	BD203 VDT	Visual Design Tools	AECC	60	40	100	3	2	4
4	BD204 UXD-A	UX Design Advance	CORE	60	40	100	3	2	4
5	BD205 BUID	Basics of UI Development	AECC	60	40	100	2	2	3
6	BD206 IS-UX	Integrated studio for UX	AECC	60	40	100	3	4	5
7	BD207 – UHV	Universal Human Values	SEC	60	40	100	2	0	2
8	BD208	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>20</b>	<b>17</b>	<b>29</b>

**B. Design, Semester-III, II yr. (4 yrs. Degree Course)****SESSIONALS**

<b>S. No</b>	<b>Code</b>	<b>Subjects</b>	<b>Type</b>	<b>Internal Marks</b>	<b>End Term Ass.</b>	<b>Total Marks</b>	<b>L</b>	<b>S</b>	<b>Credits</b>
1	BD301 EPD	Ethnography and people Design	CORE	60	40	100	2	4	4
2	BD302 IUR	Introduction to User Research	CORE	60	40	100	1	4	3
3	BD303 SDTF	Service Design and task flow	CORE	60	40	100	3	2	4
4	BD304 IA	Information Architecture	CORE	60	40	100	3	2	4
5	BD305 IUID	Introduction to UI Design	CORE	60	40	100	3	2	4
6	BD306 DT	Design thinking	AECC	60	40	100	3	2	4
7	BD307 IDS	Information and data duty	AECC	60	40	100	2	2	3
8	BD308	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>18</b>	<b>19</b>	<b>28</b>

**B.DesignSemester-IV, II yr. (4 yrs. Degree Course)****SESSIONALS**

<b>S. No</b>	<b>Code</b>	<b>Subjects</b>	<b>Type</b>	<b>Internal Marks</b>	<b>End Term Ass.</b>	<b>Total Marks</b>	<b>L</b>	<b>S</b>	<b>Credits</b>
1	BD401 URA	User research application	AECC	60	40	100	2	4	4
2	BD402 SDFT-A	Service design and task flow advance	CORE	60	40	100	3	2	4
3	BD403 IID	Introduction to interaction design	CORE	60	40	100	3	2	4
4	BD404 UID-A	UI Design Advance	CORE	60	40	100	3	2	4
5	BD405 DTA	Design thinking application	AECC	60	40	100	2	2	3
6	BD406 DA	Data Analytics	AECC	60	40	100	3	2	4
7	BD407 I6D	Introduction to 6d	CORE	60	40	100	3	2	4
8	BD408	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>20</b>	<b>17</b>	<b>29</b>

**B. Design, Semester-V, III yr. (4 yrs. Degree Course)****SESSIONAL**

<b>S. No</b>	<b>Code</b>	<b>Subjects</b>	<b>Type</b>	<b>Internal Marks</b>	<b>End Term Ass.</b>	<b>Total Marks</b>	<b>L</b>	<b>S</b>	<b>Credits</b>
1	BD501 WP	Wireframing and prototyping	CORE	60	40	100	3	2	4
2	BD502 UT	Usability Testing	AECC	60	40	100	3	2	4
3	BD503 UX & D	UX And Digitization	AECC	60	40	100	2	2	3
4	BD504 IM	Innovation management	DSE	60	40	100	3	2	4
5	BD505 VD	Visual Design tools advance	SEC	60	40	100	2	2	3
6	BD506 TED-A	Technology in Experience Design Advance	CORE	60	40	100	3	2	4
7	BD507 OED	Omni channel experience design	CORE	60	40	100	2	2	3
8	BD508/509/510 IM/CD/AE/SD	Electives	DSE	60	40	100	1	2	2
9	BD509	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>540</b>	<b>360</b>	<b>900</b>	<b>20</b>	<b>17</b>	<b>29</b>

**B. Design, Semester-VI, III yr. (4 yrs. Degree Course)****SESSIONALS**

S. No.	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD601 ID-A	Interaction Design Advance	CORE	60	40	100	2	2	3
2	BD602 UXDF	UX Design for futuristic technologies	CORE	60	40	100	3	2	4
3	BD603 UXDR	UX Design for rural India	CORE	60	40	100	2	4	4
4	BD604 UID-A	UI Development Advance	SEC	60	40	100	3	2	4
5	BD605 ISUX	Industry specific UX Design	SEC	60	40	100	1	4	3
6	BD606 ISUX-A	Integrated studio for UX	SEC	60	40	100	1	6	4
7	BD607/608/609/610 OR BD611	Electives OR Professional Skills (Career and Team)	DSE	60	40	100	1	2	2
8	BD613	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>14</b>	<b>23</b>	<b>26</b>



### B. Design, Semester-VII, IV yr. (4 yrs. Degree Course)

#### SESSIONAL

S. No	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD701 GUX	Gamification and UX Design	CORE	60	40	100	2	2	3
2	BD702 HMI	Human Machine Interface	DSE	60	40	100	3	2	4
3	BD703 PDL	Product design and Lifecycle Management	AECC	60	40	100	2	4	4
4	BD704 BDM	Business UX & Design Management	CORE	60	40	100	3	2	4
5	BD705 LP	Live Project	CORE	60	40	100	1	8	5
6	BD706/707/708	Discipline centric Electives	GSE	60	40	100	1	2	2
7	BD709/710/711/712 Or BD713	Generic open Electives OR Leadership and Management Skills	GE	60	40	100	1	2	2
8	BD714	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>14</b>	<b>23</b>	<b>26</b>

**B. Design, Semester-VIII, IV yr. (4 yrs. Degree Course)****SESSIONAL**

<b>S. No.</b>	<b>Code</b>	<b>Subjects</b>	<b>Type</b>	<b>Internal Marks</b>	<b>End Term Ass.</b>	<b>Total Marks</b>	<b>L</b>	<b>S</b>	<b>Credits</b>
1	BD801	Degree Project	CORE	60	40	100	----	----	20
		<b>GRAND TOTAL</b>		<b>60</b>	<b>40</b>	<b>100</b>	----	----	<b>20</b>

**Note:**

- A student is required to obtain min. 40% marks in individual paper & 40% in aggregate to pass.
- The total credit of B.Design. Programme is 217. However, the minimum credit required for award of degree shall be 211.
- Out of the total credits, 20% of the credits may be earned by the student through MOOCs (SWAYAM, NPTEL, Coursera etc.). However, the choice of online courses to be approved in advance by Dean/ HoD and Coordinator SWAYAM keeping in view the latest guidelines of the UGC/ respective regulatory body guidelines.

**10. COURSE-WISE LEARNING OBJECTIVES, STRUCTURES AND OUTCOMES (CLOSOS)**

**B. Design, Semester-I, I yr. (4 yrs. Degree Course)**

**THEORY**

S. No.	Code	Subjects	Type	Internal Marks	External Marks	Total Marks	L	T	Credits
1	BD101 HE	History of Art and Evolution of Design	CORE	30	70	100	4	0	4
		<b>SUB TOTAL</b>		<b>30</b>	<b>70</b>	<b>100</b>	<b>4</b>	<b>0</b>	<b>4</b>

**SESSIONAL**

S. No.	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD102 SD	Sketching and Drawing	SEC	60	40	100	2	4	4
2	BD103 FOD	Fundamentals of Design	CORE	60	40	100	3	2	4
3	BD104 IUXD	Introduction to UX Design	CORE	60	40	100	3	2	4
4	BD105 IVD	Introduction to visual Design	CORE	60	40	100	3	2	4
5	BD106 DV	Design communication and Visualizing ideas	CORE	60	40	100	2	2	3
6	BD107 EUP	Empathy and understanding problems	CORE	60	40	100	2	2	3
7	BD 108 CS	Communication skills	AECC	60	40	100	2	0	2
8	BD109	ANANDAM	AECC	60	40	100	1	1	2
		<b>SUB TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>18</b>	<b>15</b>	<b>26</b>
		<b>GRAND TOTAL</b>		<b>510</b>	<b>390</b>	<b>900</b>	<b>22</b>	<b>15</b>	<b>30</b>

**Semester** : **First 1<sup>st</sup>Year**  
**Subject Name** : **History of Art and Evolution of Design**  
**Subject Code** : **BD101 HE**

**Course Objectives:**

- To understand art in cultural context
- To comprehend evolution in Design and UX
- To know art forms in history

**Course Content:**

- Unit I** Art Forms in history
- Understanding history of different art forms – modern art, contemporary art, classical art, renaissance art
- Unit II** Historical interpretation of art
- Art appreciation and historical interpretation of art in its cultural contexts.
- Unit III** Evolution of design in everyday things
- Understanding the evolution in design through forms and everyday things.
- Unit IV** Paradigm Shift in Design from 19th century to modern time
- Journey of design across in the 19th century to modern times.
- Unit V**
- Project
- Project submission on history of Art & design

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of conceptual terminologies to boost up the skill of tracing evolution of any art and design.

- Reference Books:**
1. The story of the Art- Ernst Gombrich
  2. Gardner's Art Through the Ages - Helen Gardner
  3. Design by Evolution: Advances in Evolutionary Design - Luigi C. Barone

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Get to know Art forms in History	L1
CO2	To Understand art in cultural context	L2
CO3	Able to comprehend evolution in Design andUX	L3,L4
CO4	To envisage the paradigm shift in design as per the various technology changes	L3

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1	L	M	M	H	M	M	H	H	H	H	H	L	M
CO2	L2	H	H	M	H	L	L	M	H	H	M	L	H	L
CO3	L3,L4	H	M	M	H	M	M	M	H	H	H	H	L	L
CO4	L3	H	H	H	H	H	H	M	H	H	H	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **First 1<sup>st</sup>Year**  
**Subject Name** : **Sketching and Drawing**  
**Subject Code** : **BD102 SD**

**Course Objectives:**

- To provide fundamental of drawing and to also move you beyond the fundamental concepts
- To help students explore the endless possibilities of mark making
- To develop both unique approaches to materials and their aesthetic decision-making.
- To develop new ways of thinking, seeing, and creating

**Course Content**

- Unit I** Basics of Sketching and Drawing
- History of sketching & drawing,
  - Sketching & its types, Drawing & its types,
  - Difference between sketching and drawing,
  - Common drawing media,
  - Basics of drawing - Line, points, squares, circles, triangles,
  - 2d sketching & drawing
- Unit II** Shapes and forms
- Creating layout, shape, line & shadows, shine, Overlap, Texture detail, 3D sketching & drawing.
  - Perspective using forms, cuboid, prisms, cones, sphere.
- Unit III** Still and real-life sketching
- Application learning with still life, real life sketching
- Unit IV** Drawing Techniques
- Blind contour drawing,
  - Negative space drawing,
  - One-point perspective, Two-point perspective, Three-point perspective linear perspective,
  - Planar analysis and line variations, contours, freehand perspective, line into value.
  - Gesture Drawing, Drawing from a photo, Double image drawing
- Unit V** Drawing human figure
- Human Anatomy- Proportion drawing using shapes and drawing human figure composition. John Muir Law

**Notes :** Sessional are to be done in the form of drawings on drawing sheets and proportionate sketches on above topics. Sessional will be evaluated continuously in class.

**Exercise / Teaching Methodology :** Hands on Practice sessions to impart the drawing and sketching skills by keeping staedtler as the medium for rendering.

**Reference Books** : 1. Keys to Drawing – Bert Dodson  
2. Sketching the basics- Koos Eissen and Roselien Steur  
3. Artists Drawing Techniques – Dorling Kindersl



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To become familiar with the basic methods, techniques & tools of sketching and drawing	L1
CO2	To take part in a community of artists	L4
CO3	To undertake the challenging and nuanced process of sketching and drawing	L6
CO4	Develop a working concept of what it means to draw.	L5, L6
CO5	Develop new ways of thinking, seeing, and creating	L1, L2
CO6	Build confidence through exercises that help them explore different types of mark making.	L5, L6

Course Delivery methods	
CD1	Lectures by use of boards/LCD projectors/OHP projectors
CD2	Guest lectures/ Seminars/ Presentations
CD3	Assignments/Tutorials/exhibitions/Participation in competitions
CD4	Self- learning advice using internets
CD5	Project Discussions

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1	-	M	H	M	L	M	L	M	L	H	H	L	M
CO2	L2	M	H	H	M	-	M	M	H	M	H	L	H	L
CO3	L3,L4	H	H	M	H	-	H	M	H	H	H	H	L	L
CO4	L3	M	M	H	M	L	M	L	H	M	H	M	M	H
CO5	L1, L2	H	H	H	M	L	H	L	H	M	H	H	L	L
CO6	L5, L6	H	H	H	M	L	M	M	H	M	H	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lectures by use of boards/LCD projectors/OHP projectors	CO1,CO4,
CD2	Guest lectures/ Seminars/ Presentations	CO2,CO3,CO5
CD3	Assignments/Tutorials/exhibitions/Participation in competitions	CO1,CO2,CO3,CO4,C O5,CO6
CD4	Self- learning advice using internets	CO2,CO3, CO5,CO6
CD5	Project Discussions	CO1,CO2,CO3,CO4,C O5,CO6



**Semester** : **First 1<sup>st</sup> Year**  
**Subject Name** : **FUNDAMENTALS OF DESIGN**  
**Subject Code** : **BD103 FOD**

**Course Objectives:**

- To understand elements and principles of design
- To understand design laws and their importance in design field
- To comprehend various rules of composition of design
- To describe the scientific methods and provide examples of its application

**Course Content**

- Unit I** Elements of Design
- Introduction to design,
  - Color and its attributes,
  - Line, shape including categories texture, space, form.
- Unit II** Design Action Model and Principles of Design
- 7 Stage model of action cycle for design tools,
  - Unity, harmony and methods, balance and its types,
  - Hierarchy, Scale/proportion, dominance/emphasis, rhythm, similarity and contrast
- Unit III** Laws of Design
- Gestalt's principle – 1, Hick's law,
  - The Pareto principle - 80/20 rule,
  - The rule of thirds, Proximity, Feedback, Fitts' law,
  - The golden ratio, Occam's razor, Fibonacci sequence,
  - Mental models, emotional design,
  - Composition of Design
- Unit IV** Designing for people
- Understanding people's psychology and behavior,
  - Famous Case studies on people centric design,
  - Things to remember when designing for people
- Unit V** Project Work
- Project work on fundamentals of design

**Notes** : Mid Term shall be of Unit I, II and III

**Exercise / Teaching Methodology** : Interactive Lecturer sessions involving practice-based assignments along with studio and class presentations. *Semester Assignments in class will form integral part of end term jury.*

- Reference Books** : 1. Universal principles of Design - William Lidwell, Kritina Holden, Jill Butle  
2. Design of Everyday life – Don Norman  
3. Universal methods of design – Brushanignton  
4. Hundred Things every designer needs to know about people – Susan Weins Chen

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To understand elements and principles of design	L1
CO2	To grasp stage model of actioncycle	L2, L3
CO3	To understand design laws and their importance in designfield	L4
CO4	To comprehend various rules of composition ofdesign	L5
CO5	To gain hands-on experience of fundamentals of design	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1	L	M	H	H	H	M	M	H	M	H	H	L	M
CO2	L2, L3	H	M	M	H	L	M	H	H	M	H	L	H	L
CO3	L4	H	M	M	H	L	H	M	H	M	H	H	L	L
CO4	L5	H	M	H	H	M	H	M	H	M	H	M	M	H
C05	L6	H	M	H	H	M	H	M	H	L	H	H	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4, CO5
CD3	Seminars / Presentations	CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3



**Semester** : **First 1<sup>st</sup>Year**  
**Subject Name** : **INTRODUCTION TO UX DESIGN**  
**Subject Code** : **BD104 - 1UXD**

**Course Objectives: The course will enable students to:-**

- To understand UX design process and methodology
- To understand the importance of UX in digitalization and different types of Industries.
- To understand the concept of UX design and how it has evolved
- To learn the process of problem approaching

**Course Content**

- Unit I** Evolution of UX Design
- Understand the evolution of UX design as an industry practice and learning about UX industry experts,
  - Design around us,
  - Job roles and responsibilities in the UX industry
- Unit II** Processes and Methodologies
- Understanding UX design processes and methodologies – user centered design,
  - 5S model
- Unit III** Tools and Technology in UX Design
- Tools, prototype, Industry standards, Technology, NFC, Chatbot, Siri
- Unit IV** Multiple Domains and Trends in UX Design
- UX industry trends in various sectors
- Unit V** Project
- Project on UX design process and industry trends

**Exercise / Teaching Methodology** : Interactive lecturer sessions involving the delivery of case studies and guest sessions to enhance the knowledge of implementation of UX methodologies in products.

**Reference Books :**

1. Designing for Digital Age: How to create human-centered products and services - Kim Goodwin
2. Sketching the User experiences - Bill Buxton
3. The design of everyday things - Don Norman
4. The elements of user experience- Jesse James Garret



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To understand the concept of UX Design and how it is evolved.	L1
CO2	Able to understand UX Design process and methodology	L1,L2
CO3	Able to understand how UX Industry works	L1,L2,L3
CO4	To know the job, roles and responsibilities in UX industry.	L3
CO5	To understand the importance of UX in digitalization and different types of Industries.	L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1	M	M	M	M	L	M	M	H	M	H	H	L	M
CO2	L1,L2	H	H	M	H	L	M	M	H	M	H	L	H	L
CO3	L1,L2,L3	H	H	M	H	L	M	M	H	M	H	H	L	L
CO4	L3	M	H	M	H	M	H	H	H	H	H	M	M	H
CO5	L4	H	H	M	H	H	M	H	H	H	H	H	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4,CO5
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4,CO5,CO6
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4,CO5,CO6

**Semester** : **First 1<sup>st</sup>Year**  
**Subject Name** : **INTRODUCTION TO VISUAL DESIGN**  
**Subject Code** : **BD105 - 1VD**

**Course Objectives:**

- To understand the elements of visual design
- To master the creation of pagelayouts
- To comprehend the application of elements and tools of visual design

**Course Content**

- Unit I** Basic elements of visual design
- Introduction to basic elements of visual design – detailed study of color, color wheel, visual hierarchy, legibility and readability, grid, layout
- Unit II** Typography
- What is typography, Typefaces history and study, Types of fonts - serif and non-serif,
  - Font anatomy, Importance of Typography in modern age UI design,
  - Usage of type for print vs digital,
  - Latest Trends in Typography
- Unit III** Iconography
- What is iconography, visualization of icons, industry standards and specifications for iconography, designing for various form factors,
  - trends in iconography,
  - User perception about iconography
- Unit IV** Introduction to Visual Tools
- Introduction to visual design tools including lab session on elements of visual design and tools
- Unit V** Project work
- Project work in tools & elements of visual design

**Notes** : Mid Term Exam shall be as of Unit I to III.

**Exercise / Teaching Methodology**

: Interactive lecturer sessions including the delivery of case studies, assignments and examples.

**Reference Books** : 1. Graphic Design The new basics – Ellen Lupton and Jennifer Cole Philips  
2. Visual Miscellaneum- David McCandles

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To understand the elements of visual Design	L1, L2
CO2	To master the creation of page layouts	L5, L6
CO3	To obtain and working knowledge of visual design tools	L5, L6
CO4	To comprehend the application of elements and tools of visual design	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	L	M	H	M	H	M	L	L	-	M	H	L	M
CO2	L5, L6	L	M	H	M	H	M	L	L	L	M	L	H	L
CO3	L5, L6	L	M	H	M	H	M	L	L	L	M	H	L	L
CO4	L6	L	H	H	M	H	M	M	M	M	M	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4



**Semester** : **First 1<sup>st</sup>Year**  
**Subject Name** : **DESIGN COMMUNICATION AND VISUALIZING IDEAS**  
**Subject Code** : **BD106 - DV**

**Course Objectives:**

- To learn to generate new ideas
- To grasp the methods of presenting complex information visually
- To comprehend and effectively communicate the Design Ideas

**Course Content**

- Unit I** Visualization techniques
- Learning visualization techniques through - visual identity design, metamorphism visualization techniques.
- Unit II** Ideation Methods
- Brainstorming and mind mapping
- Unit III** Information Visualization
- Information visualization through infographics and designing brand communication.
- Unit IV** Communicating Design Ideas
- Documenting and communicating design ideas through presentations, role play and group activities
- Unit V** Project
- Project in design communication and visualization

**Notes** : Mid Term Exam shall be as of Unit I to III.

**Exercise / Teaching Methodology**

: Interactive lecture sessions involving the delivery of case studies of Data visualization of brands to communicate the different design communication formats like infographics, bubble graphs etc.

**Reference Books :**

1. Cool Infographics: Effective Communication with Data Visualization and Design – Randy Krum
2. Information Visualization: Perception for Design - Colin Ware

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Get to know different visualization techniques	L3
CO2	To learn to generate new ideas	L5, L6
CO3	To grasp the methods of presenting complex information visually	L4, L5, L6
CO4	To comprehend and effectively communicate the design ideas	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internet

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	M	H	H	M	M	H	M	M	M	H	H	L	M
CO2	L5, L6	M	H	H	M	M	H	M	M	M	H	L	H	L
CO3	L4, L5, L6	M	H	H	M	M	H	M	M	M	H	H	L	L
CO4	L5, L6	M	H	H	M	M	H	M	M	M	H	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internet	CO1,CO2,CO3

**Semester** : **First 1<sup>st</sup>Year**  
**Subject Name** : **EMPATHY AND UNDERSTANDING PROBLEMS**  
**Subject Code** : **BD-107 EUP**

**Course Objectives:**

- To learn how to define the problem on the basis of fact
- To understand the difference between empathy and sympathy
- To use different tools and techniques for empathizing with people
- To know the application of empathy

**Course Content**

- Unit I** Introduction to Empathy
- What is Empathy, Learn how to understand users & their problems,
  - Techniques to empathize with users and identify key user problems
- Unit II** Analyzing facts from Empathy to Dig Deeper
- Learn how to gain insights from empathy and define problem statements
- Unit III** Empathy Tools and Techniques
- Empathy tools – techniques for getting empathy insights through interviews
- Unit IV** Application of Empathy in design
- Empathy maps, emotional mapping, observation, field study with actual users
- Unit V** Project
- Project submissions empathy mapping

**Notes :** Mid Term Exam shall be as of Unit I to III.

Sessionals shall be in the form of Power Point Presentations.

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. Empathy: Why it matters, how to get it - Roman Kizanie
2. The Art of Empathy: A complete Guide to life's most essential skill – Karla McLaren

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Discern the facts after dully analyzing the information received from the user.	L3
CO2	To learn how to define the problem on the basis of facts	L4
CO3	To grasp various empathy techniques and tools	L4, L5, L6
CO4	To practice various tools to comprehend root cause of the problem leading to correct definition	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	H	H	H	H	M	M	M	M	M	M	H	L	M
CO2	L4	M	M	M	M	L	L	L	L	L	L	L	H	L
CO3	L4, L5, L6	H	H	H	H	L	L	L	L	L	M	H	L	L
CO4	L5, L6	H	H	H	H	L	M	M	L	L	M	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3, CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4
CD3	Seminars / Presentations	CO1,CO2,CO3, CO4
CD4	Project Discussions	CO1,CO2,CO3, CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3, CO4

**Semester** : **First 1<sup>st</sup> Year**  
**Subject Name** : **COMMUNICAITON SKILLS**  
**Subject Code** : **BD108 CS**

**Course Objectives:**

- To identify common communication problems that may be holding learners back
- To identify what their non-verbal messages are communicating to others
- To understand role of communication in teaching-learning process
- To learn to communicate through the digital media
- To understand the importance of empathetic listening
- To explore communication beyond language.

**Course Content:** In today's world of computers and digital media, a strong communication skill base is essential for learners and for smooth functioning of an organization.

**Unit I**            **Listening:** Techniques of effective listening, Listening and comprehension, Probing questions, Barriers to listening  
**Speaking:** Pronunciation, Enunciation, Vocabulary, Fluency, Common Errors  
**Reading:** Evaluating these ideas and information  
Identify the arguments employed in the text  
Identify the theories employed or assumed in the text  
Interpret the text  
To understand what a text says  
To understand what a text does  
To understand what a text means  
Basic Communication Model  
Verbal and Non-Verbal Communication  
Questioning Skills  
Using English Language Properly

- Use of words
- Common Errors in English

Active and Passive Voice

**Unit II**            **Composition-I**

- Précis
- Essay
- Paragraph

Copy Writing for advertisements — characteristics of a good advertisement, aids to make advertisement attractive and effective.

**Composition-II**

- Technical reports and letter writing
- Speeches, profile of speaker, characteristics of speech.
- Aesthetic and critical writing, kinesics.

Appreciation of scene, figures and images.

- Unit III** Writing and different modes of writing
- Clearly state the claims
  - Avoid ambiguity, vagueness, unwanted generalisations and oversimplification of issues
  - Provide background information
  - Effectively argue the claim
  - Provide evidence for the claims
  - Use examples to explain concepts
  - Follow convention
  - Be properly sequenced
  - Use proper signposting techniques
  - Business & Professional Letter writing
  - **Be well structured**
- Well-knit logical sequence  
Narrative sequence  
Category groupings
- Unit IV** Digital Literacy
- Role of Digital literacy in professional life
  - Trends and opportunities in using digital technology in workplace
  - Internet Basics
  - Introduction to MS Office tools
- Unit V** Presentation Skills (for formal design presentations, seminars etc)  
Listening Skills  
Preparing Written Reports

**Notes:** Mid Term Exam shall be as of Unit I to III.

**Exercise / Teaching Methodology**

Interactive Lecturer sessions involving practice to be followed rigorously with assignments and class presentations. ***Formal Presentation in class will form integral part of end of term exam.***

Instructor-Led Training, Supplemented by Online Platform (SWAYAM)

**Reference Books :**

1. Wren & Martin
2. Advanced English Grammar by Hewings Martin
3. Essential English Grammar by Murphy
4. Fowler's Modern English Usage by Oxford
5. A Communication Grammar of English by Suartuik & Leech
6. A Practical English Grammar by Thomson and Martinet
7. Communication In A Virtual Organization by Collins Staandra D
8. Business Communication by Bhatia Varinder
9. Essentials of Business Communication by Jain & Saakshi
10. Advanced Communication Skills Laboratory Manu by Sudha Rani
11. Sen Madhucchanda (2010), An Introduction to Critical Thinking, Pearson, Delhi

12. Silvia P. J. (2007), *How to Read a Lot*, American Psychological Association, Washington DC

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To identify problems that may be holding learners back.	L1
CO2	To identify what their non-verbal messages are communicating to others.	L2
CO3	To understand the role of communication in teaching – learning process.	L3,L4
CO4	To understand the importance of empathetic listening.	L3
CO5	To explore communication beyond language.	L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PSO 3
CO1	L1	H	L	H	M	H	H	L	L	H	L	H	L	M
CO2	L2	H	H	L	L	L	M	H	L	M	M	L	H	L
CO3	L3,L4	H	L	H	M	H	H	L	L	H	L	H	L	L
CO4	L3	H	M	H	L	L	M	M	M	H	M	M	M	H
CO5	L4	H	H	L	L	L	M	H	L	M	M	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1, CO2, CO3, CO4,
CD2	Tutorials/Assignments	CO1, CO3, CO4, CO5
CD3	Seminars / Presentations	CO1, CO2, CO3, CO4
CD4	Project Discussions	CO1, CO2, CO3, CO5
CD5	Self- learning advice using internets	CO1, CO3, CO5



**Semester** : **First** **1<sup>st</sup>Year**  
**Subject Name** : **ANANDAM**  
**Subject Code** : **BD109**

**Course Objective :**

1. To instill the joy of giving in young people, turning them into responsible citizens to build up a better society.
2. To inculcate the habit of service in students across the University.
3. Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:****Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs****A. From the Anandam Platform**

- a. An online platform to manage and share service opportunities
- b. A list of suggested programs or volunteering organizations.
- c. Training for faculty members on how to facilitate the Anandam program

**B. From the University**

- a. Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- b. The act of goodness will not be evaluated, just if it was recorded or not
- c. The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- d. Mentors to guide and review the student's activities on an regular basis
- e. There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

## B. Design, Semester-II, I yr. (4 yrs. Degree Course)

## SESSIONAL

S. No	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD201 SD-A	Sketching and Drawing Advance	SEC	60	40	100	2	4	4
2	BD202 TED	Technology in Experience Design	CORE	60	40	100	4	2	5
3	BD203 VDT	Visual Design Tools	AECC	60	40	100	3	2	4
4	BD204 UXD-A	UX Design Advance	CORE	60	40	100	3	2	4
5	BD205 BUID	Basics of UI Development	AECC	60	40	100	2	2	3
6	BD206 IS-UX	Integrated studio for UX	AECC	60	40	100	3	4	5
7	BD207 – UHV	Universal Human Values	SEC	60	40	100	2	0	2
8	BD208	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>20</b>	<b>17</b>	<b>29</b>

**Semester** : **Second** **1<sup>st</sup> Year**  
**Subject Name** : **SKETCHING AND DRAWING ADVANCE**  
**Subject Code** : **BD201 SD-A**

**Course Objectives:**

- To understand the fundamentals of art
- To draw the human face and figure
- To draw from objects out of your head

**Course Content**

- Unit I** Exploring mediums
- Exploring color mediums like colored papers, color pencils, chalk, charcoal, ink etc.
- Unit II** Perspectives in Sketching and drawing
- One point perspective, Two point perspective, Three point perspective, lettering, typo and Calligraphy
- Unit III** Illusions and human anatomy
- Creating tessellation, Human anatomy, Printmaking, drawing – anatomy, storyboarding, illustration, painting
- Unit V** Real Life sketching
- Application learning with still life, real life sketching, still life, nature
- Unit VI** Advanced project on Sketching and Drawing

**Notes :** Mid Term Exam shall be as of Unit I to IV.

Sessionals will be in the form of drawings and models.

**Exercise / Teaching Methodology :** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books :**

1. Advanced Drawing Skills: A Course in Artistic Excellence - Barrington Barber
2. How to Sketch - Liron Yanconsky
3. The new drawing on the right side of the brain - Betty Edwards
4. The Natural way to Draw – Kimon Nicolaides

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Understand the fundamentals of art.	L1
CO2	Draw the human face and figure.	L6
CO3	Draw the Realistic Light and shadow.	L6
CO4	Draw Perspective drawing.	L6
CO5	Draw Objects from the mind.	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Practice based sessions
CD4	Presentations/exhibitions
CD5	Project Discussions
CD6	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1	L	M	H	M	L	M	L	M	L	M	H	L	M
CO2	L6	L	M	H	M	M	M	L	M	L	M	L	H	L
CO3	L6	M	M	H	M	M	M	L	M	L	M	H	L	L
CO4	L6	M	M	H	M	M	M	L	M	L	M	M	M	H
CO5	L6	M	M	H	M	M	M	L	M	L	M	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4,CO5
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5
CD3	Practice based sessions	CO2, CO3, CO4, CO5
CD4	Presentations/Exhibitions	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4,CO5
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4,C05

**Semester** : **Second** **1<sup>st</sup> Year**  
**Subject Name** : **TECHNOLOGY IN EXPERIENCE DESIGN**  
**Subject Code** : **BD202 TED**

**Course Objectives:**

- To know futuristic technologies and their implementation in design
- To understand technology for digital experience and product ecosystems
- To understand research project in design using latest technology
- To learn the technology constraints on design

**Course Content**

- Unit I** Technology for digital experience
- Understanding technology for digital experience and product ecosystems – form factors, operating systems, wifi, Bluetooth, sensors and other hardware components.
- Unit II** Technological feasibility and viability
- Understanding technological feasibility and viability.
  - Technology constraints on design
- Unit III** Futuristic Technologies
- Learning about futuristic technologies and their implementation in design,
  - Wearable medical devices
- Unit IV** Futuristic Technologies Continued
- Details of Internet of Things, Augmented reality and virtual reality, ATM, KIOSK
- Unit V** Research Project
- Research project on upcoming technologies and defining product ecosystems and constraints of key technologies

**Notes** : Mid Term Exam shall be as of Unit I to IV.

**Exercise / Teaching Methodology**

: Interactive lecturer sessions involving the activities like studying the technological trends to get aware of the future of technology.

**Reference Books :**

1. Emotions, technology and design - Sharon Y. Tettegah
2. Augmented Reality: Principles and Practice – Dieter Schmalstieg
3. Augmented Reality: An emerging technologies guide - Gregory Kipper and Joseph Rampolla



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Get to know futuristic technologies and their implementation in design	L1, L2
CO2	Able to comprehend technology constraints on design	L3,L4
CO3	To Understand technology for digital experience and product ecosystems	L5
CO4	Research project in design using latest technology	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	H	H	H	L	L	L	M	M	M	M	H	L	M
CO2	L3,L4	M	M	M	L	L	L	H	H	M	M	L	H	L
CO3	L5	M	M	H	H	H	H	H	H	H	H	H	L	L
CO4	L6	L	L	L	H	H	H	H	H	H	H	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Second** **1<sup>st</sup>Year**  
**Subject Name** : **VISUAL DESIGN TOOLS**  
**Subject Code** : **BD203 VDT**

**Course Objectives:**

- To understand elements design vector artwork
- To understand to implement useful keyboardshortcuts
- To comprehend illustrator the way a professional would useit

**Course Content**

- Unit I** Photoshop
- Photoshop – Interface & Workspace, modifying workspace, toolsand layers, blendingoptions
- Unit II** Photoshop Continued
- Photoshop – layer effect filters, Image editing and enhancing, mixing,layer masking, ExternalPlug-ins
- Unit III** Illustrator
- Illustrator - Interface & workspace, modifying workspace, tools andlayers, blendingoptions
- Unit IV** Illustrator Continued
- Illustrator – working with vectors, object libraries, layer effect filters, Image editing and enhancing, mixing, layer masking, drawing, ExternalPlug-ins
- Unit V** Project
- Lab work on visual design tools, Project on visual designtools

**Notes** : Mid Term Exam shall be as of Unit I toIV.

**Exercise / Teaching Methodology:** Practical based sessions involving the delivery of technical knowledge on Design oriented softwares like Photoshop, Illustrator etc.

**Reference Books:** 1. The Adobe Photoshop CC Book for Digital Photographers - Scott Kelby  
2. Adobe Illustrator CC Classroom in a Book ( 2017 release) – BrianWood



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Be able to Design vector artwork	L6
CO2	Able to prepare graphics for web and print	L6
CO3	To implement useful keyboard shortcuts	L5, L6
CO4	Learn illustrator the way a professional would use it	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L6	L	M	H	M	M	M	M	M	L	M	H	L	M
CO2	L6	L	H	H	H	M	M	M	M	L	M	L	H	L
CO3	L5, L6	L	H	H	H	H	M	M	H	L	H	H	L	L
CO4	L6	L	H	H	H	H	M	M	H	L	H	M	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Second** **1<sup>st</sup>Year**  
**Subject Name** : **UX DESIGN ADVANCE**  
**Subject Code** : **BD204 UXD-A**

**Course Objectives:**

- To be able to understand how UX works in different sectors
- To comprehend evaluation method and benefits in project
- To document and present evaluation data effectively

**Course Content**

- Unit I** UX methodologies
- Deep-dive in UXmethodologies
- Unit II** Case Studies
- Case studies in UXdesign
- Unit III** Heuristic evaluation
- Heuristicevaluation
- Unit IV** Product UX Lifecycle
- Understanding product UX lifecycle.
- Unit V** Project
- Project on UXdesign

**Notes** : Mid Term Exam shall be as of Unit I toIV.

**Exercise / Teaching Methodology:**Interactive lecturer sessions involving the delivery of case Studies and guest sessions to enhance the knowledge of implementation of Advanced UX Methodologies.

**Reference Books:**

- 1.100 things every designer needs to know about people - SusanWeinschenk
2. Don't makemethink - SteveKrug
3. TheUXBook - Rex Hartson and PardhaPyla

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Get to know about the implementation of UX methodologies	L3
CO2	Develop the skill of applying heuristic technique for data collection.	L5, L6
CO3	Learn the relevance of product Lifecycle	L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	H	H	L	H	L	M	M	H	M	H	H	L	M
CO2	L5, L6	M	M	L	H	M	L	H	H	M	H	L	H	L
CO3	L4, L5	H	H	L	H	M	M	H	H	M	H	H	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Second** **1<sup>st</sup> Year**  
**Subject Name** : **BASICS OF UI DEVELOPMENT**  
**Subject Code** : **BD205 BUID**

**Course Objectives:**

- To understand the basic structure of the web page
- To learn the basic concepts of HTML and CSS
- To learn CSS' role in creating user interfaces for mobiles and websites
- A deeper understanding of the DOM (document object model) and how CSS interacts with it

**Course Content**

- Unit I** Basic Development
- Learning front-end development technologies – HTML, CSS, JavaScript, JQuery.
- Unit II** HTML Pages
- Structure of HTML Page, Mandatory tags in html page (html, head,body).
- Unit III** CSS
- What is CSS, Different ways of applying CSS for elements, and priority chain of CSS
- Unit IV** Attributes
- Heading tags (H1...H6), Tags and attributes (Class, Id, style etc.).  
Inline and block level elements
- Unit V** Project
- Project and lab in front-end-development

**Notes** : Mid Term Exam shall be as of Unit I to IV.

**Exercise / Teaching Methodology**

: Interactive lecturer sessions involving practice based assignments along with Studio and class presentations.

- Reference Books** :
1. Responsive Web Design with HTML and CSS 3- Ben Frain
  2. CSS Mastery: Advanced Web standard solutions- Andy Budd
  3. HTML and CSS: Design and build websites- Jon Duckett

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual understanding of the basic structure of the Web page	L1, L2
CO2	Apply the basic concepts of HTML and CSS	L5, L6
CO3	Integrate CSS' role in creating user interfaces for mobiles and websites	L6
CO4	Explore the interaction of the DOM withCSS	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	L	M	L	L	H	H	L	L	L	M	H	L	M
CO2	L5, L6	L	M	L	L	L	M	M	M	L	M	L	H	L
CO3	L6	L	H	H	H	H	M	M	M	L	M	H	L	L
CO4	L4, L5, L6	L	H	H	H	H	M	M	M	L	H	H	L	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Second** **1<sup>st</sup>Year**  
**Subject Name** : **INTEGRATED STUDIO FOR UX**  
**Subject Code** : **BD206 IS-UX**

**Course Objectives:**

- To be able to effectively apply the concepts of UX design to the live problem of organization.

**Course Content**

**Unit I** Project on UX design implementation with industry relevant problem statement

**Exercise / Teaching Methodology:** Field research is the main component of the whole teaching Approach to impart the skills of implementing different research methods like Survey, Interview etc.

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Enhanced ability to apply concepts such as Primary and secondary method, Research method tools and methodologies	L6
CO2	Understanding of how to discover and define problem statement	L5, L6
CO3	Understanding of how to select the sample size from target audience	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments/Field research
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L6	H	H	L	H	L	M	H	H	M	H	H	L	M
CO2	L5, L6	H	H	L	H	L	M	M	M	M	H	L	H	L
CO3	L4, L5, L6	H	H	L	H	L	M	M	M	M	M	H	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Second** **1<sup>st</sup>Year**  
**Subject Name** : **UNIVERSAL HUMAN VALUES**  
**Subject Code** : **BD207 UHV**

**Course Objectives:**

- The present course deals with meaning, purpose, and relevance of universal Human Values and how to inculcate and practice them consciously to be a good human being and realize one's potentials. Basic of rural and urban society
- Understanding society and its issues
- Understanding of urbanization and modernization.

**Course Content:**

Truth, Love, Peace, Non-Violence and Righteous Conduct are the Universal Human Values. Renunciation (sacrifice), Compassion and Service are also commonly acceptable human values, which at the operation level have been named differently as sincerity, honesty, righteousness, humility, gratitude, aspiration, prosperity, non-violence, trust, faith, forgiveness, mercy, peace and so on. These are needed for well-being of an individual, society and humanity and ultimately Peace in the world.

**Unit I**                      • Man, environment and society, distinguishing features of Rural and Urban society, the concept of social stratification urbanization and modernization.

**Unit II**                      **LOVE & COMPASSION:**

- Introduction: What is love? Forms of love—for self, parents, family, friend, spouse, community, nation, humanity and other beings, both for living and non-living
- Love and compassion and inter-relatedness
- Love, compassion, empathy, sympathy and non-violence
- Individuals who are remembered in history for practicing compassion and love.
- Narratives and anecdotes from history, literature including local folklore
- Practicing love and compassion: What will learners learn gain if they practice love and compassion? What will learners lose if they don't practice love and compassion?
- Sharing learner's individual and/or group experience(s)
- Simulated Situations
- Case studies

**TRUTH:**

- Introduction: What is truth? Universal truth, truth as value, truth as fact (veracity, sincerity, honesty among others)
- Individuals who are remembered in history for practicing this value
- Narratives and anecdotes from history, literature including local folklore
- Practicing Truth: What will learners learn/gain if they practice truth?



What will learners lose if they don't practice it?

- Learners' individual and/or group experience(s)
- Simulated situations
- Case studies

**Unit III**

**NON-VIOLENCE:**

- Introduction: What is non-violence? Its need. Love, compassion, empathy sympathy for others as pre-requisites for non-violence
- Ahimsa as non-violence and non-killing
- Individuals and organizations that are known for their commitment to nonviolence
- Narratives and anecdotes about non-violence from history, and literature including local folklore
- Practicing non-violence: What will learners learn/gain if they practice Nonviolence? What will learners lose if they don't practice it?
- Sharing learner's individual and/or group experience(s) about non-violence
- Simulated situations
- Case studies

**RIGHTEOUSNESS:**

- Introduction: What is righteousness?
- Righteousness and *dharma*, Righteousness and Propriety
- Individuals who are remembered in history for practicing righteousness
- Narratives and anecdotes from history, literature including local folklore
- Practicing righteousness: What will learners learn/gain if they practice righteousness? What will learners lose if they don't practice it?
- Sharing learners' individual and/or group experience(s)

**PEACE**

- Introduction: What is peace? Its need, relation with harmony and balance
- Individuals and organisations that are known for their commitment to peace
- Narratives and Anecdotes about peace from history, and literature including local folklore
- Practicing peace: What will learners learn/gain if they practice peace? What will learners lose if they don't practice it?
- Sharing learner's individual and/or group experience(s) about peace
- Simulated situations
- Case studies

**Unit IV**

Concept of social structure, cultural and social institutions, relation between social structure and spatial structure, social aspects of housing for different economic classes with focus on urban poor, Urban Slums and problems of slums.

**SERVICE:**

- Introduction: What is service? Forms of service, for self, parents, family, friend, spouse, community, nation, humanity and other beings—living and non-living, persons in distress or disaster.

- Individuals who are remembered in history for practicing this value.
- Narratives and anecdotes dealing with instances of service from history, literature including local folklore
- Practicing service: What will learners learn/gain if they practice service? What will learners lose if they don't practice it?
- Sharing learners' individual and/or group experience(s) regarding service
- Simulated situations
- Case studies

## Unit V

Community participation in development of public assets like schools.

### Renunciation (Sacrifice)

- Introduction: What is renunciation? Renunciation and sacrifice. Self-restrain and Ways of overcoming greed. Renunciation with action as true renunciation
- Individuals who are remembered in history for practicing this value.
- Narratives and anecdotes from history and literature, including local folklore about individuals who are remembered for their sacrifice and renunciation.
- Practicing renunciation and sacrifice: What will learners learn/gain if they practice Renunciation and sacrifice? What will learners lose if they don't practice it?
- Sharing learners' individual and/or group experience(s)
- Simulated situations
- Case studies

**Notes** : Mid Term Exam shall be as of Unit I to III.

### Exercise / Teaching Methodology

- : Study (in groups of 4-5) of urban slums to document various social cultural aspects of urban slums with focus on usages of spaces in the 24 hour day cycle and different seasons. Individual project involving interaction with community or study of social and cultural customs or informal shopping like *Haat Bazaar* or anything similar followed by seminar.

- Reference Books** :
1. Sociology by C.N. Shankar Rao
  2. Sociology Basic Concepts by H.K. Rawat
  3. Indian Social System by Ram Ahuja
  4. Ideology & Theory in Indian Sociology by Yogendra Singh
  5. Sociology by Anthony Giddens
  6. Social Science an introduction to the study of society by Elgin F. Hunt & David C. Colander
  7. Urban Sociology by N. Jayapalan
  8. Urban Sociology: Images & Structure by William G. Flanagan
  9. Urbanization in India Sociological Contributions by Ranvinder Singh Sandhu

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Know about universal human values and understand the importance of values in individual, social circles, career path, and national life.	L1, ,2
CO2	Learn from case studies of lives of great and successful people who followed and practised human values and achieved self-actualisation.	L2, L3
CO3	Become conscious practitioners of human values.	L3, L4
CO4	Realise their potential as human beings and conduct themselves properly in the ways of the world.	L2, L3
CO5	Grasp the fundamental economics of the Indian society	L4
CO6	Understand and apply economic principles in building construction projects.	L2, L3,
CO7	Features of rural and urban society.	L2

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PSO 3
CO1	L1, ,2	H	H	H	H	M	M	M	M	M	M	H	L	M
CO2	L2, L3	M	M	M	M	L	L	L	L	L	H	L	H	L
CO3	L3, L4	H	H	M	M	L	L	H	H	M	M	H	L	L
CO4	L2, L3	M	M	M	M	M	M	L	M	M	M	H	L	M
CO5	L4	M	L	L	L	L	M	M	M	M	H	L	H	L
CO6	L2, L3,	H	M	M	M	M	M	M	M	M	M	H	L	L
CO7	L2	M	L	L	L	L	H	H	M	M	M	H	L	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO5.CO6,CO7
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4, CO5, CO6, CO6, CO7
CD3	Seminars / Presentations	CO1,CO2,CO3. CO4, CO5, CO6, CO7
CD4	Project Discussions	CO1,CO2,CO3, CO7
CD5	Self- learning advice using internets	CO1,CO2,CO3. CO5, CO7

**Semester** : **Second 1<sup>st</sup>Year**  
**Subject Name** : **ANANDAM**  
**Subject Code** : **BD208**

**Course Objective :**

- To instill the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:**

**Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs**

**C. From the Anandam Platform**

- An online platform to manage and share service opportunities
- A list of suggested programs or volunteering organizations.
- Training for faculty members on how to facilitate the Anandam program

**D. From the University**

- Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated, just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on an regular basis
- There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

## B. Design, Semester-III, II yr. (4 yrs. Degree Course)

## SESSIONALS

S. No	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD301 EPD	Ethnography and people Design	CORE	60	40	100	2	4	4
2	BD302 IUR	Introduction to User Research	CORE	60	40	100	1	4	3
3	BD303 SDTF	Service Design and task flow	CORE	60	40	100	3	2	4
4	BD304 IA	Information Architecture	CORE	60	40	100	3	2	4
5	BD305 IUID	Introduction to UI Design	CORE	60	40	100	3	2	4
6	BD306 DT	Design thinking	AECC	60	40	100	3	2	4
7	BD307 IDS	Information and data duty	AECC	60	40	100	2	2	3
8	BD308	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>18</b>	<b>19</b>	<b>28</b>

**Semester** : **Third 2<sup>nd</sup>Year**  
**Subject Name** : **ETHNOGRAPHY AND PEOPLE DESIGN**  
**Subject Code** : **BD301 EPD**

**Course Objectives:**

- To understand the users, people and culture
- To understand the user's interaction with the environment
- To take part in different UX domains and societies
- To understand research problems, data gathering techniques
- To perform field study to understand people design

**Course Content**

- Unit I** Introduction to Ethnography and its Importance in UX
- History and Origin of Ethnography, How people think and feel, what motivates them, People are social, form and features of Ethnographic research,
  - Theory and ethnography in modern anthropology of India
- Unit II** Ethnography as method
- Conducting ethnographic research,
  - Understanding cognitive and organizational psychology, evaluating ethnographic research data
- Unit III** Introduction to semiotics
- History and meaning of semiotics,
  - Basics of semiotics,
  - Understanding Symbol, sign and Icon, difference between symbol, icon and sign, Signifier, signified and signification.
  - Applications in real time world in the form of storytelling
- Unit IV** Elective- Ethnography study on Globalization
- Plutchik's wheel of emotion, K-pop culture effect on design, Study on how colonization changed the ethnography of regions, Nation branding around the world
- Unit V** Representation of Ethnographic data
- Pictorial representation of the study in the form of painting, installation, product, etc.

**Notes** : Mid Term Exam shall be as of Unit I to III.

**Exercise / Teaching Methodology**

: Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books** : 1. The observational research handbook – Bill Aarås  
2. Projects in Ethnographic Research 1st Edition, Kindle Edition – by Michael V. Angrosino  
Semiotics- by Daniel Chandler

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Implement Techniques for Understanding users	L6
CO2	Analyze the user’s interaction with the environment, people and culture	L4
CO3	Execute different UX domains and societies in Ethnographic study	L3
CO4	Prepare ethnography mood boards, user scenarios,storyboards	L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments/Field research
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L6	H	H	H	H	L	L	L	L	L	L	H	L	M
CO2	L4	M	M	M	M	M	-	L	L	L	L	L	H	L
CO3	L3	H	H	H	H	H	M	M	M	M	M	H	L	L
CO4	L4, L5	M	M	M	L	L	L	H	H	-	L	H	L	M

**H- High, M- Moderate, L- Low, ‘-’ for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Third** **2<sup>nd</sup>Year**  
**Subject Name** : **INTRODUCTION TO USER RESEARCH**  
**Subject Code** : **BD302 IUR**

**Course Objectives:**

- To understand the importance of User research
- To understanding the different user research methodologies
- To grasp hands-on experience of tools for user research
- Understanding cognitive psychology and user behavior

**Course Content**

- Unit I** Introduction to User Research and its Importance,  
• Understanding User interactions
- Unit II** User Research methodologies  
• Planning for a User Research User Segment, defining persona for research & recruiting users,  
• Preparing a Questionnaire for user research,  
• Focus group discussion - do and don'ts,  
• Online surveys - tools, do and don'ts,  
• Analysis Interview Tips & Techniques
- Unit III** Field study: Hands on practice of methodologies  
• Preparing and Conducting Stakeholder workshop,  
• Preparing questionnaire for Interviews, and Online surveys
- Unit IV** Tools of Empathy and analysis  
• Tools of empathy like Persona, Empathy Map and User Journey Map,  
• Documenting Qualitative Research, Documenting Quantitative Research
- Project Work  
• Project work on User research

**Notes** : Mid Term Exam shall be as of Unit I to IV.

**Exercise / Teaching Methodology**

: Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

- Reference Books** :
1. UX Research- by Brad Nunnally (Author), David Farkas (Author)
  2. The UX Research Methodology Guidebook- User testing freebook
  - 3 Modern UX research in action: 10 research stories- User testing freebook
  4. Observing the User Experience: A Practitioner's Guide to User Research- by Mike Kuniavsky



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Be able to understand the importance of User research	L2, L3
CO2	Understanding the different user research methodologies	L2, L3, L4
CO3	Able to grasp hands-on experience of tools for user research	L5, L6
CO4	Understanding cognitive psychology and user behavior	L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	L	L	L	M	L	M	M	H	H	H	H	L	M
CO2	L2, L3, L4	H	H	M	M	L	M	L	L	L	L	L	H	L
CO3	L5, L6	M	M	M	M	L	M	M	H	H	H	H	L	L
CO4	L4	M	M	M	M	L	M	M	H	H	H	H	L	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Third** **2<sup>nd</sup> Year**  
**Subject Name** : **SERVICE AND DESIGN TASK FLOW**  
**Subject Code** : **BD303 SDTF**

**Course Objectives:**

- Understanding tasks, processes and systems
- To be able to find and execute user touch points, ecosystem diagram, value proposition map
- To learn to use CJM to understand user flows
- To understand task flows, creating task flows and systems engineering
- Learning KPIs for efficiency in service design and systems engineering
- Shortest path Service design in different domains

**Course Content**

- Unit I** Introduction to service design
- Introduction to Service design, History with case studies
- Unit II** Basics of task flows
- What are task flows, basics to create task flows, Implementing into simple problems
- Unit III** Methodology of service design
- Defining the users involved with analytical tools, define their requirements for the service and its logical and organizational structure,
  - Representation of the service by means of techniques that illustrate all the components of the service, including physical elements, interactions, logical links and temporal sequence, systems engineering
- Unit IV** System Design for Public sector
- Public services include public goods and governmental services such as the military, police, infrastructure (public roads, bridges, tunnels, water supply, sewers, electrical grids, telecommunications, etc.), public transit, public education, along with health care and those working for the government itself, such as elected officials.
- Unit V** Project on System design for public sector
- Project based

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books** :

1. UX Research- by Brad Nunnally (Author), David Farkas (Author)
2. The UX Research Methodology Guidebook- User testing freebook
3. Modern UX research in action: 10 research stories- User testing freebook
4. Observing the User Experience: A Practitioner's Guide to User Research- by Mike Kuniavsky

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Understanding tasks, processes and systems	L2
CO2	Be able to find and execute user touch points, ecosystem diagram, value proposition map	L4
CO3	Using CJM to understand user flows	L2, L6
CO4	Learning KPIs for efficiency in service design and system engineering	L4
CO5	Shortest path Service design in different domains	L2
CO6	Understanding task flow for operators	L2, L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2	L	L	L	M	L	M	M	L	L	H	H	L	M
CO2	L4	H	H	H	M	L	M	M	L	M	M	L	H	L
CO3	L2, L6	-	-	-	L	L	L	L	L	L	M	H	L	L
CO4	L4	H	H	H	M	L	L	M	L	L	M	H	L	M
CO5	L2	H	H	H	M	L	L	M	L	L	M	H	L	L
CO6	L2, L4, L5	H	H	H	M	L	L	M	L	L	M	H	L	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4,CO5,CO6
CD2	Tutorials/Assignments	CO3,CO4,CO5,CO6
CD3	Seminars / Presentations	CO3,CO4,CO5,CO6
CD4	Project Discussions	CO3,CO4,CO5,CO6
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4,CO5,CO6

**Semester** : **Third** **2<sup>nd</sup>Year**  
**Subject Name** : **INFORMATION ARCHITECTURE**  
**Subject Code** : **BD304 IA**

**Course Objectives:**

- To understand Information architecture
- To learn the tools and techniques of Informationarchitecture
- To have a hand on using excel as a tool for card sorting Creating IA for differentindustries,

**Course Content**

- Unit I** Introduction to Information Architecture
- What is Information architecture, Structure, hierarchy and typesof Informationarchitecture,
  - Principles and steps of InformationArchitecture
- Unit II** Tools and Techniques of Information architecture
- Learning affinitymapping,
  - Cardsorting,
  - Analysis of Informationarchitecture,
  - Using excel as a tool for card sorting, Activitybased.
- Unit III** Dream hooks
- Understanding the meaning of dream hooks, Tools like how mightwe,
  - Idea generation tools and Methodology of dreamhooks,
  - Implementing dreamhooks
- Unit IV** Implementing Dream hooks with Information architecture
- Unit V** Project
- Project submission on Dream hooks implemented with Information architecture on anyIndustry

**Notes** : Mid Term Exam shall be as of Unit I toIII.

**Exercise / Teaching Methodology**

: Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

- Reference Books:**
- 1.A Practical Guide to Information Architecture- by DonnaSpencer
  2. Mental Models: Aligning Design Strategy with Human Behavior - by IndiYoung
  3. Information Architecture for the World Wide Web: Designing Large-Scale Web Sites – byPeter Morville, LouisRosenfeld

**Course Outcomes: On completion of the course, student will be able to:**

<b>CO</b>	<b>Statement</b>	<b>Blooms Level</b>
CO1	Prepare Information Architecture	L4, L6
CO2	Implement tools and techniques of IA	L3
CO3	Students execute on using excel a tool for card sorting	L3, L6
CO4	Create IA for different industries.	L6

<b>Course Delivery methods</b>	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L4, L6	L	L	M	M	L	L	L	M	L	M	H	L	M
CO2	L3	L	M	H	H	L	L	M	M	L	M	L	H	L
CO3	L3, L6	M	M	H	M	H	L	M	M	L	M	H	L	L
CO4	L6	M	M	H	M	H	M	M	M	L	M	H	L	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

<b>CD</b>	<b>Course Delivery methods</b>	<b>Course Outcomes</b>
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Third 2<sup>nd</sup>Year**  
**Subject Name** : **INTRODUCTION TO UI DESIGN**  
**Subject Code** : **BD305IUID**

**Course Objectives:**

- Learning UI design guidelines for different platforms and operating systems
- Understanding the principles and fundamentals of UI Design.
- To be able to learn and get hands on Iconography & typography for interfacdesign
- To fundamentals of screen design based on design guidelines and Cross platform screendesign.

**Course Content**

- Unit I** Basic elements of UI design
- Introduction to basic elements of visual design – detailed study of color, color wheel, visual hierarchy, legibility and readability, grid
- Unit II** Typography
- Whatistypography, Typefaceshistoryandstudy, Typesoffonts-serifand non-serif, Font anatomy, Importance of Typography in modern age UI design, Usage of type for print vs digital, Latest Trends in Typography
- Unit III** Iconography
- What is iconography, visualization of icons, industry standards and specifications for iconography, designing for various formfactors,
  - trends in iconography, User perception abouticonography
- Unit IV** Introduction to Visual Tools
- Introduction to visual design tools including lab session on elements of visual design andtools
- Unit V** Project work
- Project work in tools & elements of visual design

**Exercise / Teaching Methodology:**Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books :**

1. Color Theory in Web UI Design- *Free ebook byUXpin*
2. The Essential Guide to user Interface Design: An Introduction to GUI Design Principles and Techniques, 2ed- *by WilbertO.Galitz*
3. Graphic Design - The new basics- *Ellen Lupton and Jennifer Cole Phillips*
4. The Visual Miscellaneum: A Colorful Guide to the World's Most Consequential Trivia - *David McCandle*

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Implement UI design guidelines for different platforms and operating systems.	L3, L4
CO2	Apply the principles and fundamentals of UI Design.	L6
CO3	Design Iconography & typography for interface design with hands on practice.	L6
CO4	Develop digital screens with the practical training in UI design	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L4	L	M	H	M	H	M	M	H	M	H	H	L	M
CO2	L6	L	M	M	M	M	M	M	H	M	H	L	H	L
CO3	L6	L	M	H	M	H	H	M	M	M	M	H	L	L
CO4	L6	M	H	H	M	H	M	M	M	M	H	H	L	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO4
CD2	Tutorials/Assignments	CO3,CO4
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester : Third 2<sup>nd</sup>Year**  
**Subject Name: DESIGN THINKING**  
**Subject Code : BD306 DT**

**Course Objectives:**

- To know what design thinking and wicked problem is.
- To learn to generate new ideas
- To grasp the methods of the design thinking 5dprocess
- To comprehend and effectively use the tools and techniques to solve wickedproblems
- To apprehend the application of design thinking with casestudies

**Course Content:**

- Unit I** Introduction to Design thinking and Wicked problems
- Learning the meaning of design thinking and how it has evolved to solve wicked problems around the world, four pillars of wickedproblems
- Unit II** Design thinking process
- Deep dive into the 5Dprocess
- Unit III** Case studies in Design thinking
- Getting to know the real-world applicationsand success stories of differentindustries
- Unit IV** Tools and techniques in Design thinking
- Learning the tools and getting hands on practice on eachtool
- Unit V** Project
- Project on Designthinking

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**References :**

1. Gamestorming: A Playbook for Innovators, Rulebreakers, and Changemakers- by Dave Gray, Sunni Brown, JamesMacanifo
2. Sprint- JakeKnapp
3. Change by Design - TimBrown



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual understanding of design thinking and wicked problem	L1, L2
CO2	Implement techniques to generate new ideas	L3
CO3	Apply the methods of the design thinking 5dprocess	L6
CO4	Creatively solve wicked problems by adopting design thinkingapproach	L4, L5
CO5	Integrate application of design thinking with casestudies	L3, L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	H	H	L	H	L	M	M	M	H	M	H	L	M
CO2	L3	H	M	L	M	L	M	M	M	H	M	L	H	L
CO3	L6	H	H	L	H	L	M	M	M	H	M	H	L	L
CO4	L4, L5	H	H	L	H	L	M	M	M	H	M	H	L	M
CO5	L3, L4, L5	H	H	L	H	L	M	M	M	H	M	H	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3,CO4,CO5
CD5	Self- learning advice using internets	CO1,CO2,CO3

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**B.DES.**

**Semester** : **Third 2<sup>nd</sup>Year**  
**Subject Name** : **INFORMATION AND DATASTUDY**  
**Subject Code** : **BD307 IDS**

**Course Objectives:**

- To understand the need of information and datastudy
- Discern the facts after dully analyzing the information received from theuser
- To learn how to define the problem on the basis of facts and To grasp various ecosystems for data To practice various tools to comprehend root cause of the problem leading to correct datastudy

**Course Content:**

- Unit I** Industry driven by data
- Pharma- R&D driven by data, retail- shopping driven by data, E-commerce- what to show driven data, Banking- Personal finance management
- Unit II** Sources of Data
- Learn how to gain Google analytics, company internaldata
- Unit III** Defining Data driven UX
- Learning how to define the data for the Userexperience,
  - Case study on data drivenUX
- Unit IV** Basics of Data analysis and information
- What is information, actionable input from data collection, process of data analysis, parameters that UX designer can use (location, time, direction), data in the new IOT world-connected device data, What is big data andits effect on users/ux design
- Unit V** Defining parameters for UX
- Parameter for UX ROI, Parameters that can be collected and used about user, parameters about customer, how to defineparameters

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the introduction of conceptual terminologies along with practice based assignments and studio.

**Reference Books:**

1. Designing with Data- *Elizabeth Churchill, Caitlin Tan, Rochelle King*
2. Analytics + User Testing: The Secret Weapon of Conversion RateOptimization
3. Big Data in Practice: How 45 Successful Companies Used BigData Analytics to Deliver
4. Extraordinary Results – *User Testing Freeebook*

**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Identify the scope or need of information and data study	L3
CO2	Integrate the facts after dully analyzing the information received from theuser	L3, L4
CO3	Define the problem on the basis of facts and to grasp various ecosystems fordata	L3, L4
CO4	To practice various tools to comprehend root cause of the problem leading to correct datastudy	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	M	M	L	M	L	L	L	M	M	M	L	M	M
CO2	L3, L4	M	M	L	M	L	M	L	M	M	M	H	L	L
CO3	L3, L4	M	M	L	M	L	M	L	M	M	M	L	L	L
CO4	L6	M	M	L	M	L	M	L	M	M	M	L	M	M

**H- High, M- Moderate, L- Low, '-' for No correlation****Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4
CD3	Seminars / Presentations	CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2

**Semester** : **Third**      **2<sup>nd</sup>Year**  
**Subject Name** : **ANANDAM**  
**Subject Code** : **BD308**

**Course Objective :**

- To instil the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:****Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs**

## E. From the Anandam Platform

- An online platform to manage and share service opportunities
- A list of suggested programs or volunteering organizations.
- Training for faculty members on how to facilitate the Anandam program

## F. From the University

- Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated, just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on an regular basis
- There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

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**B. Design Semester-IV, II yr. (4 yrs. Degree Course)**
**SESSIONALS**

S. No	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD401 URA	User research application	AECC	60	40	100	2	4	4
2	BD402 SDFT-A	Service design and task flow advance	CORE	60	40	100	3	2	4
3	BD403 IID	Introduction to interaction design	CORE	60	40	100	3	2	4
4	BD404 UID-A	UI Design Advance	CORE	60	40	100	3	2	4
5	BD405 DTA	Design thinking application	AECC	60	40	100	2	2	3
6	BD406 DA	Data Analytics	AECC	60	40	100	3	2	4
7	BD407 I6D	Introduction to 6d	CORE	60	40	100	3	2	4
8	BD408	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>20</b>	<b>17</b>	<b>29</b>

**Semester** : **Fourth 2<sup>nd</sup>Year**  
**Subject Name** : **USER RESEARCHAPPLICATION**  
**Subject Code** : **BD401 URA**

**Course Objectives:**

- Understand the phenomenon of user research is learnt through hands on training
- Exploring different user research methodologies ensuring appropriate solution
- Learn and practice the tools of User Research
- Introduction to basic cognitive psychology and userbehavior
- Field experience on user researching through a pre-selectedproblem

**Course Content:**

- Unit I** User research characteristics
- What is user research and how is itperformed?
- Unit II** User research methodologies
- Detailed orientation on user research methodologies comprising of, Personas for research, preparing questionnaires, defining focus groups, dos anddon'ts, survey tools
- Unit III** Introduction to the tools for user research
- Detailed approach into the implementation of user research toolsthrough workshops
- Unit IV** Use of cognitive psychology and user behavior
- Use of empathy mapping and customer journey mapping to understanduser needs
- Unit V** Field research
- Solving a pre chosen user problem performing an actual userresearch

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books** :

1. Observing the User Experience: A Practitioner's Guide to User Research- by MikeKuniavsky
2. UX Research- by Brad Nunnally and DavidFarkas

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Apply the conceptual understanding of user research and its tools	L3
CO2	Implement different user research methodologies ensuring appropriate solution	L3, L4
CO3	Gain insights of basic cognitive psychology and user behavior	L3, L4, L5
CO4	Gain field experience on user research through a pre-selected problem	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	H	M	L	M	L	M	L	M	M	M	L	M	M
CO2	L3, L4	H	M	L	H	L	M	M	M	M	M	H	L	L
CO3	L3, L4, L5	H	M	L	M	L	M	M	M	M	M	L	L	L
CO4	L6	H	H	L	H	L	M	M	M	M	M	L	M	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

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**B.DES.**

<b>Semester</b>	<b>:</b>	<b>Fourth 2<sup>nd</sup>Year</b>
<b>Subject Name</b>	<b>:</b>	<b>SERVICE DESIGN AND TASK FLOWADVANCE</b>
<b>Subject Code</b>	<b>:</b>	<b>BD402 SDFT-A</b>

**Course Objectives:** The course will enables students to:-

- Understand the concept of Case studies
- Introduction to task flows
- Methodologiesof servicedesign
- Handson training with private sectorcompanies

**Course Content:**

- Unit I**           Complex service design case studies
- Follow through on various Case studies and successtories
- Unit II**           Deep dive into task flows
- Learning to build complex task flows, Implementing intocomplex problems
- Unit III**          Methodology of service design
- Learning analytical tools and systemsengineering
- Unit IV**          System Design for private sector
- Learning through projects of MNC's, Hospitals, private roadwayservices etc.

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. Service Design: From Insight to Inspiration- by Andy Polaine, LavransLøvlie, BenReason
2. The Service Startup: Design Thinking gets Lean: A practical guide to Service Design Sprint – by Tenny Pinheiro
3. MappingExperiences: ACompleteGuidetoCreatingValuethroughJourneys,Blueprints, andDiagram- by JamesKalbach



**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Apply conceptual knowledge of Case studies	L3
CO2	Gain insights of task flows	L4
CO3	Implement methodologies of servicedesign and Execute framework of System design for private sectorcompanies	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	H	H	L	M	L	M	H	H	M	H	L	M	M
CO2	L4	H	H	L	M	L	M	M	H	M	H	H	L	L
CO3	L5, L6	H	H	L	M	L	H	H	H	H	H	L	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation****Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

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**B.DES.**

**Semester** : **Fourth 2<sup>nd</sup> Year**  
**Subject Name** : **INTRODUCTION TO INTERACTION DESIGN**  
**Subject Code** : **BD403 IID**

**Course Objectives:** The course will enable students to:-

- Learning the Importance and scope of Interaction design,
- User centered design
- Design of interactive products Methods of interaction design
- Tools for interaction design
- Get to know futuristic technologies and their implementation in design

**Course Content:**

- Unit I** Introduction to Interaction design
- Understanding scope and history of interaction in design, case studies
- Unit II** User Centered design
- What is User Centered Design?
  - User-Centered Design Process, UCD is an Iterative Process,
  - UCD Considers the Whole User Experience, Investment in UCD Payoff, Benefits of UCD and UX,
  - UCD Waterfall process map
- Unit III** Design of interactive products
- Ergonomics (Physical, cognitive and organizational)
- Unit IV** Methods of interaction design
- Learning the different methods which includes tools and techniques of interaction design, Understanding micro-interactions
- Unit V** Project
- Project on Ergonomics

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based assignments along with studio and class presentations.

**Reference Books** :

1. About Face 3: The Essentials of Interaction Design- by Robert Reimann, Alan Cooper, David Cronin (Author)
2. Designing Interactions (The MIT Press)- by Bill Moggridge

**B.DES.**

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain Insights regarding the Importance and scope of Interaction design and User centered design	L1, L2
CO2	Design interactive products	L6
CO3	Apply methods of interaction design	L3, L4
CO4	Use Tools for interaction design	L6
CO5	Implement the knowledge of futuristic technologies in design	L3, L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	H	M	L	M	L	M	M	M	M	M	L	M	M
CO2	L6	M	H	M	M	L	M	M	M	M	M	H	L	L
CO3	L3, L4	M	H	M	M	L	M	M	M	M	M	L	L	L
CO4	L6	L	M	L	M	M	M	M	M	M	M	H	L	L
CO5	L3, L4	M	H	M	M	L	M	M	M	M	M	L	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO5
CD2	Tutorials/Assignments	CO2,CO3,CO4
CD3	Seminars / Presentations	CO5
CD4	Project Discussions	CO2,CO3,CO4
CD5	Self- learning advice using internets	CO5

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**B.DES.**

**Semester** : **Fourth 2<sup>nd</sup> Year**  
**Subject Name** : **UI DESIGN ADVANCE**  
**Subject Code** : **BD404 UID-A**

**Course Objectives:** The course will enable students to:-

- Advance User Interface designing
- Cross platform interface design and responsive design
- User Interface concept and design guidelines
- User Interface design documentation and design delivery documentation
- Understanding how User Interface and User Experiences work in different sectors together

**Course Content :**

- Unit I** Advance UI Interface design
- Creation of cross platform interface design and responsive design
- Unit II** UI Concept, design guidelines and tools
- Introduction to UI design concept and guidelines
  - Zeplin
- Unit III** UI design documentation
- The process of UI design documentation and design delivery documentation
- Unit IV** Practical Project
- Hands on training through Project on interface designing

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books :**

1. HTML5: Discover How To Create HTML 5 Web Pages With Ease (HTML5 CSS3 JavaScript)- by Shay Howe
2. Responsive Web Design with HTML5 and CSS3- by Ben Frain

**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Design Advance UserInterface	L6
CO2	Design Cross platform interface design and responsivedesign and apply User Interface concept and designguidelines	L6
CO3	Create User Interface design documentation and design deliverydocumentation	L6
CO4	Gain insights into how User Interface and User Experiences work in different sectorstogether	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L6	L	M	M	L	H	M	M	M	M	M	L	M	M
CO2	L6	-	H	H	M	H	H	H	H	H	H	H	L	L
CO3	L6	-	H	H	M	H	H	H	H	H	H	L	L	L
CO4	L4, L5, L6	L	H	M	H	M	H	H	H	H	H	H	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation****Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

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**B.DES.**

<b>Semester</b>	<b>:</b>	<b>Fourth</b>	<b>2<sup>rd</sup> Year</b>
<b>Subject Name</b>	<b>:</b>	<b>DESIGN THINKING APPLICATION</b>	
<b>Subject Code</b>	<b>:</b>	<b>BD405 DTA</b>	

**Course Objectives:**

- Deep dive into complex wicked problems to solve them through strategies
- To be able to understand the various ways in which innovative products can be built
- To be able to follow the 5d process from scratch
- Understanding in the way of business advantages

**Course Content:**

- Unit I** Advance tools in Design thinking
- Learning tools like value proposition mapping and canvas, Feature mapping and ROI mapping
- Unit II** Business advantage of Design thinking
- Case studies and aspects of design thinking on business of various sectors, Design Management,
  - Product lockdown
- Unit III** Practicing product lockdown
- UI design documentation, design delivery documentation
- Unit IV** Strategic design thinking
- Project based: Strategic Product design (prototypes) and making wearable devices with UX init

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books :**

1. Design Thinking Workshop: The 12 Indispensable Elements for a Design Thinking Workshop-

**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Solve complex wicked problems through strategies	L5, L6
CO2	Apply various ways in which innovative products can be built	L3, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L5, L6	H	H	L	H	L	H	H	H	H	H	M	M	L
CO2	L3, L6	H	H	L	H	L	H	H	H	H	H	L	L	H

**H- High, M- Moderate, L- Low, '-' for No correlation****Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2
CD2	Tutorials/Assignments	CO1,CO2
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO1,CO2
CD5	Self- learning advice using internets	CO1,CO2

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**B.DES.**

**Semester : Fourth 2rdYear**  
**Subject Name: DATA NALYTICS**  
**Subject Code : BD406 DA**

**Course Objectives:**

- Able to effectively apply the concepts and phycology so as to analyze big and complex data
- To be able to understand the tool and fetch data in a structured form
- To able to read, structure, segment and conclude the heavy information

**Course Content:**

- Unit I** Data in UX Design
- Revisit of data driven UX, data driven card sorting, data driven user research, data driven usertesting
- Unit II** Data in service design
- Task flows and data, Efficiency and data, casestudy
- Unit III** Data in decision for leadership
- How to create actionable dashboard, drill down of data(layers)
- Unit IV** Gamification and Data analysis
- Scores in gamification, badges anddata
- Unit V** Engagement and data analysis
- How to provide engagement and personalization withdata

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books :**

1. Designing with Data- by Rochelle King, Elizabeth Churchill, CaitlinTan
2. Gamification By Design: Implementing Game Mechanics in Web and Mobile Apps- by Gabe Zichermann, ChristopherCunningham



**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Apply the concepts and psychology so as to analyze big and complex data	L5, L6
CO2	Implement the knowledge of tools and fetch data in a structured form	L3, L6
CO3	Gain insights into reading, structuring, segmenting and concluding the heavy information	L2, L3, L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L5, L6	L	M	L	M	L	M	M	M	M	H	M	M	L
CO2	L3, L6	M	M	L	M	L	M	M	M	M	H	L	L	H
CO3	L2, L3, L4	M	M	L	H	L	M	M	M	M	H	L	H	H

**H- High, M- Moderate, L- Low, '-' for No correlation****Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Fourth** **2<sup>nd</sup>Year**  
**Subject Name** : **INTRODUCTION TO 6D**  
**Subject Code** : **BD407 I6D**

**Course Objectives:** The course will enables students to:-

- Learning to design with 6D process Practice sessions to concretize the skills learnt
- Implementation of different tools and techniques at correct form and place
- Use of advance technology and hands-on implementation on the project

**Course Content:**

**Unit I** Project on implementation of 6D process in any service/product

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Perform skills learnt in practice sessions to design with 6D process	L5, L6
CO2	Execute the different tools and techniques at correct form and place	L4, L5, L6
CO3	Gain insights of advance technology and hands-on implementation on the project	L3, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L5, L6	L	M	L	M	L	M	M	M	M	H	M	L	L
CO2	L4, L5, L6	M	M	L	M	L	M	M	M	M	H	L	H	L
CO3	L3, L6	M	M	L	H	L	M	M	M	M	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Fourth 2<sup>nd</sup>Year**  
**Subject Name** : **ANANDAM**  
**Subject Code** : **BD408**

**Course Objective :**

- To instil the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:****Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs**

## G. From the Anandam Platform

- An online platform to manage and share service opportunities
- A list of suggested programs or volunteering organizations.
- Training for faculty members on how to facilitate the Anandam program

## H. From the University

- Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated, just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on an regular basis
- There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

### B. Design, Semester-V, III yr. (4 yrs. Degree Course)

#### SESSIONAL

S. No.	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD501 WP	Wireframing and prototyping	CORE	60	40	100	3	2	4
2	BD502 UT	Usability Testing	AECC	60	40	100	3	2	4
3	BD503 UX & D	UX And Digitization	AECC	60	40	100	2	2	3
4	BD504 IM	Innovation management	DSE	60	40	100	3	2	4
5	BD505 VD	Visual Design tools advance	SEC	60	40	100	2	2	3
6	BD506 TED-A	Technology in Experience Design Advance	CORE	60	40	100	3	2	4
7	BD507 OED	Omni channel experience design	CORE	60	40	100	2	2	3
8	BD508/509/510 IM/CD/AE/SD	Electives	DSE	60	40	100	1	2	2
9	BD509	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>540</b>	<b>360</b>	<b>900</b>	<b>20</b>	<b>17</b>	<b>29</b>

**Semester** : **Fifth** **3<sup>rd</sup>Year**  
**Subject Name** : **WIREFRAMINGANDPROTOTYPING**  
**Subject Code** : **BD501 WP**

**Course Objectives:**

- Understand and practice the techniques involved in designing digital wireframes for UI Platforms.
- Design wireframes on paper and translate paper concepts into digital wireframes.
- Practice to learn the tools required to design wireframes and prototypes.
- Understand and practice the techniques involved in designing digital wireframes for HMI and other digital screens.
- Understand and practice the techniques involved in creating digital prototypes.
- Tools to be taught Axure RP, Invision

**Course Content:**

**Unit I** Basics guidelines of Wire framing

**Unit II** Designing wireframes on paper

**Unit III** Designing wireframes on Axure/Invision 9 Hours

**Unit IV** Designing digital wireframes for different UI platforms 12 Hours

**Unit V** Practice and Project based- Web, Mobile Application, IOS, wearable

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. The Guide to Wireframing- UXPin freebook
2. The Guide to Mockup- UXPin freebook

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Apply the techniques involved in designing digital wireframes for UI Platforms.	L6
CO2	Design and execute wireframes on paper and translate paper concepts into digital wireframes.	L6
CO3	Use the tools required to design wireframes and prototypes.	L6
CO4	Implement the knowledge of techniques involved in designing digital wireframes for HMI and other digital screens.	L3, L6
CO5	Execute the techniques involved in creating digital prototypes.	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L6	L	M	M	L	H	M	M	H	M	H	M	L	L
CO2	L6	L	M	M	L	H	M	M	H	M	H	L	H	L
CO3	L6	L	M	H	L	H	M	M	H	M	H	H	H	L
CO4	L3, L6	L	M	H	L	H	M	M	H	M	H	L	H	L
CO5	L4, L5, L6	L	M	H	L	H	M	M	H	M	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4,CO5
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4,CO5
CD4	Project Discussions	CO1,CO2,CO3,CO4,CO5
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO5

**Semester** : **Fifth** **3<sup>rd</sup>Year**  
**Subject Name** : **USABILITY TESTING**  
**Subject Code** : **BD502 UT**

**Course Objectives:**

- To learn the process of conducting usability tests
- To learn the steps for digital products
- To understand Preparations for usability testing
- To understand Usability testing methodologies
- To able to Conduct the Usability testing and document it

**Course Content:**

**Unit I** Process of Usability testing

- What is Usabilitytesting,
- Types of testing, Learning the steps to test different types of products/service/methods- planning, executing, information gathering and documentation,

**Unit II** Usability testing for Digital products

- Learn how to create questionnaires, test cases and testmoderation.
- Preparing for the testing of products, Understanding people’s psychology andBehavior studies

**Unit III** Tools and Techniques of Usability Testing

- Usability testing methodologies – task based user testing, A/B testing, lab baseduser testing, remote user testing, moderated & un-moderated usertesting

**Unit IV** Project Work

- Project work on Usability Testing- students will pick up a real-life digital application and conduct end-to-end usability testing on the product and submit a report for evaluation

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studioand class presentations.

**Reference Books** :

1. Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests - by JeffreyRubin, Dana Chisnell,
2. The complete guide to user testing websites, apps, and prototypes- User testing freebook



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Apply the process of conducting usability tests	L6
CO2	Implement the steps for digital products	L3, L6
CO3	Execute preparations for usabilitytesting	L5, L6
CO4	Gain insights into the conceptual understanding of Usability testingmethodologies	L3, L6
CO5	Conduct the Usability testing and documentit	L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L6	L	M	L	M	H	H	M	M	L	H	M	L	L
CO2	L3, L6	L	M	M	M	H	H	M	M	L	H	L	H	L
CO3	L5, L6	L	M	M	L	H	H	H	M	L	H	H	H	L
CO4	L3, L6	L	M	M	L	H	H	H	H	M	H	L	H	L
CO5	L4, L5	-	M	M	L	H	H	H	H	M	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3,CO4,CO5
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4,CO5

**Semester** : **Fifth 3<sup>rd</sup>Year**  
**Subject Name** : **UX AND DIGITIZATION**  
**Subject Code** : **BD503 UX &D**

**Course Objective:**

- Understanding different technologies
- Be able to find and execute technologies keeping in mind user
- To be able to perform Research and design for all industry segments using a toolkit

**Course Content:**

- Unit I** UX and digitalization in different industry segments
- Understand by case studies how technology and digitalization is transforming different industry segments – BFSI, manufacturing, retail, automotive, media, FMCG, logistics, oil & gas.
  - Project Work 60 Hours Project work on any one industry

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books** :

1. Becoming the retailer of the future: Your journey to digital transformation- *Free eBook Cisco*
2. Digital Manufacturing: Transform operations and evolve the supply chain- *Free eBook by opentext*

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Integrate different technologies into products	L3, L4
CO2	Execute technologies by keeping User in mind	L4, L5
CO3	Conduct Research and design for all industry segments using atoolkit	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L4	H	H	L	H	L	L	H	H	H	H	M	L	L
CO2	L4, L5	H	H	L	H	L	L	H	H	H	H	L	H	L
CO3	L5, L6	H	H	L	H	L	L	H	H	H	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

<b>Semester</b>	<b>:</b>	<b>Fifth</b>	<b>3<sup>rd</sup> Year</b>
<b>Subject Name</b>	<b>:</b>	<b>INNOVATION MANAGEMENT</b>	
<b>Subject Code</b>	<b>:</b>	<b>BD504 IM</b>	

**Course Objectives:**

- To understand the roles of skill, experience, motivation and culture in creative endeavor
- To appreciate how the perspective taken on creativity affects the policy used to engender it  
To differentiate between radical and incremental innovation
- To identify some potential disruptive innovations and take advantage of ‘open’ innovation

**Course Content:**

- Unit I** Innovation & Creativity
- What is Innovation? What is creativity?
  - Difference between innovation and creativity, dynamics of creative thinking, becoming creatively fit as an individual, creative insight, idea generation.
- Unit II** Innovation in organizations
- Learn what is innovation and how leading organizations across the world are implementing innovation,
  - Role of creativity and innovation in organizations, idea evaluation, creativity in teams, team’s environment and creativity, creating climate for creativity and an enterprise, creating an environment that keeps creative people creating, managing creative employees, leading for creativity and innovation, creativity to innovation, Success stories
- Unit III**
- Innovation Management Process Understanding what is Innovation management,
  - Learn the 4 pillars of innovation, innovation maturity matrix and the innovation management process – problem identification, ideation, and implementation. Understanding innovation as a culture  
Innovation management tools – user study, social listening, customer care reports, data analytics, hackathons, paper prototyping, digital roadmap, market gap analysis, commercialization.
- Unit IV** Project
- Research and implementing innovation management process for different industry segments

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. Innovation Management: Strategies Implementation- by Jauhari (Author)
2. Creativity and Innovation Management: A storytelling approach- Velimir Srića

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain insights into the roles of skill, experience, motivation and culture in creative endeavor	L4
CO2	Apply perceptual knowledge on creativity which affects the policy used to engender it	L3, L4
CO3	Identify between radical and incremental innovation	L5
CO4	Create framework around potential disruptive innovations and take advantage of ‘open’ innovation	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L4	L	M	M	M	M	M	M	M	M	M	M	L	L
CO2	L3, L4	L	H	M	H	M	H	M	H	M	H	L	H	L
CO3	L5	L	M	M	M	M	M	M	H	M	H	H	H	L
CO4	L6	M	H	M	M	M	M	M	H	M	H	L	H	L

**H- High, M- Moderate, L- Low, ‘-’ for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Fifth 3<sup>rd</sup> Year**  
**Subject Name** : **VISUAL DESIGN TOOLSADVANCE**  
**Subject Code** : **BD505 VDT-A**

**Course Objectives:**

- To learn advance level illustrator
- To conceptually design art onillustrator
- To understand the design tools inPhotoshop

**Course Content:**

**Unit I** Illustrator

- Learning and Practicing Advance level tool practice in visualconcepts, typography,iconography, Visualelements

**Unit II** Photoshop

- Advance level tool practice in interface design for cross-platform, responsive,andweb. Project on thesubject

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. The Adobe Photoshop CC Book for Digital Photographers- *by ScottKelby*
2. Adobe Illustrator CC Classroom in a Book - *by BrianWood*

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Operate advance level illustrator	L4, L6
CO2	Create Conceptual design art on illustrator	L6
CO3	Perform the design tools in Photoshop	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L4, L6	-	M	H	L	H	M	M	M	M	H	M	L	L
CO2	L6	-	M	H	L	H	H	M	M	M	H	L	H	L
CO3	L6	-	M	H	L	H	H	M	M	M	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Fifth 3<sup>rd</sup> Year**  
**Subject Name** : **TECHNOLOGY IN EXPERIENCE DESIGNADVANCE**  
**Subject Code** : **BD506 TED-A**

**Course Objectives:**

- Become aware of the current technology
- How the User Experience will be created and managed
- Understand the Software Development Life Cycle
- Understand the concept of Ecosystem

**Course Content:**

- Unit I** Understand how software teams work, roles of different profiles; front end and back end, types of technologies for back end and front end, constraints of each technology
- Unit II** Introduction to SDLC
- Types, pros and cons of SDLC, what are the processes that they use and frameworks that they use. Learn SDLC methodologies such as agile, lean, and traditional/waterfall – pros & cons of each process
- Unit III** Agile and design thinking Framework
- Deep dive into agile process, case studies, Framework of agile, The State of UX Agile Development, Agile Process Is Flexible, Top 10 Tips for UX Success From Agile Practitioners
- Unit IV** Ecosystem project
- Understanding product ecosystems for futuristic technologies – industry 4.0, Practice – Project in SDLC in any one domain (eg; E-commerce, healthcare, BFSI, Manufacturing)

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Book:**

1. The UX Book: Agile UX Design for a Quality User Experience- Rex Hartson, Pardha S. Pyla



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Integrate the knowledge of existing technologies into the products and systems	L3, L4
CO2	Enhance the User experience by proposing the conceptual understanding of technologies	L4, L5
CO3	Participate and contribute in SDLC	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L4	L	M	L	M	L	L	M	M	H	M	M	L	L
CO2	L4, L5	M	M	L	H	L	L	M	H	M	M	L	H	L
CO3	L5, L6	M	M	L	H	L	L	M	H	M	M	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Fifth 3<sup>rd</sup>Year**  
**Subject Name** : **OMNI CHANNEL EXPERIENCE DESIGN**  
**Subject Code** : **BD507 OED**

**Course Objectives:**

- To understand the concept of Omni channel design
- To learn how to build Omni channel experience
- To grasp various key elements of building an Omni-channel experience
- To practice and create Omni-channel User Experience to Increase Customer Engagement

**Course Content:**

- Unit I** Introduction to Omni channel experience design
- What is Omni-channel experience design,
  - Why do we need omni channel ux,
  - Understanding all Omni-channel experiences will use multiple channels, but not all multi-channel experiences are Omni-channel.
  - Multichannel vs. Omnichannel
- Unit II** Case studies
- Bank of America's Omni-channel UX, Sephora's Omni channel UX, Walgreens' Omni channel UX, Caratlane and Tanishq, Fab furnish and home center at future groups
- Unit III** Building Omni channel experiences
- Elements of Omni channel experiences, Learn how to design omni-channel experiences – Mobile, web, wearable, cloud.
  - Customer service and offline touch points. Designing omni-channel product ecosystems and Design multi-channel interaction patterns.
- Unit IV** Project: Practice – Omni-channel User Experience Best Practices to Increase Customer Engagement

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. UX for dummies- by Donald Chestnut, Kevin Nicolas
2. UX Strategy: How to Devise Innovative Digital Products that People Want – by Jaime Levy
3. The Secret to Achieving a Perfect Omni-channel User Experience- Free ebook Trigent

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual insights of Omni channel Design	L3
CO2	Build and enhance Omni channelexperience	L6
CO3	Implement key elements of building an Omni-channelexperience	L3, L6
CO4	Create Omni-channel User Experience to Increase CustomerEngagement	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

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Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	-	H	M	M	L	L	M	M	L	M	M	L	L
CO2	L6	-	H	M	M	L	L	M	M	L	M	L	H	L
CO3	L3, L6	-	H	M	H	L	L	M	M	L	M	H	H	L
CO4	L6	-	H	M	H	L	L	M	M	L	H	L	H	L

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**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
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CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Fifth 3<sup>rd</sup>Year**  
**Subject Name** : **Culture and Design**  
**Subject Code** : **BD508 CD**

**Course Objectives:**

- To understand design in cultural context
- To learn cultural design principles and their implementation
- To comprehend the evolution of Design with cultural Thinking
- To learn the relevance of cultural design by studying the case studies of Multi-cultural User experience design

**Course Content:**

- Unit I** Introduction to concepts of culture and Design
- Cross cultural Design  
What is cross cultural design, How cross cultural design psychology affects UX Domains, different cultural models and dimensions as design guidelines, Understanding cross cultural design principles and culturally responsive experiences- Internationalization and Localization
  - Inclusive design  
What is Inclusive Design, Why is it known for building Responsible experiences, what are inclusive design principles, examples like inclusive Skype
- Unit II** The Evolution of UX design with culture Thinking
- What is cultural thinking? , Why cultural thinking revolves around behavior centered design, Cultural Evolution impacting the Design process
- Unit III** Cultural Trends in UX Industry
- Learn how cross cultural design affecting the Interface Design, bidirectional design, colors, fonts, icons, graphics
  - Exploring different terminologies like Cultural Immersion, Design for inclusivity etc.
- Unit IV** Case studies of Multi - cultural User experience Design
- Starbucks in the US, Japan, Middle East and Austria; Ikea search field in Sweden, Saudi Arabia, the US and Japan
- Unit V** Project
- Cultural Research and implementation of cross cultural and inclusive design principles to improvise the user experience products of different sectors

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of culture and Design to make students understand the relevance of inclusive design to enhance the overall user experience of goods and services of different industries.

- Reference Books:**
1. Cross cultural Design by Senongo Akpem
  2. Design for Real Life by Eric Meyer & Sara Wachter-Boettcher
  3. Inclusive Design by Heydon Pickering
  - 4 Inclusive: A Microsoft Toolkit
  - 5 An introduction to Design and Culture by Penny Sparke



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Implement cross cultural design and inclusive design principles into products.	L3, L4
CO2	Able to integrate accessible design features into products and services for multi-cultural audience	L4, L5
CO3	To envisage the paradigm shift in design as per the various cultural models	L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L4	L	M	M	H	-	M	H	H	H	H	M	L	L
CO2	L4, L5	H	H	M	H	-	L	M	H	H	M	L	H	L
CO3	L5	H	M	M	H	-	M	M	H	H	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Fifth 3<sup>rd</sup>Year**  
**Subject Name** : **Applied Ergonomics**  
**Subject Code** : **BD508 CD**

**Course Objectives:**

- To gain the conceptual understanding of applied ergonomics
- To explore the relationship between applied ergonomics and functionality of the products.
- To learn the importance of comfort design in UI/UX Industry
- To build a deeper understanding of integration of applied ergonomics guidelines into web and mobile UX Design

**Course Content:**

- Unit I** Introduction to Applied Ergonomics
- Definition of Ergonomics/Human Factors?; Fundamentals of Ergonomics; Domains of ergonomics – Physical, cognitive and organizational; difference between applied and cognitive ergonomics; significance of Ergonomics – Factors affecting human performance when interacting with products; Theories and frameworks of ergonomic design- High level models: Distributed cognition, Activity Theory, situated action and Fitts’ Law.
- Unit II** Applied ergonomics and User Interface Design
- Ergonomic Guidelines for Interface Design – Consistency, simplicity, cognitive directness, modality, display issues
- Unit III** Ergonomics for Mobile UX
- Mobile UI Ergonomics- easy and hard tap zones of mobile interface, how do users hold mobile devices – one hand, cradled two hand, thumb length for phone UI single hand use;
  - Relationship between form factors and the application of ergonomics in mobile UI; Correlation of Mobile User Interface Guidelines and ergonomics or comfort design
- Unit IV** Project
- Review various case studies to understand the applied ergonomics in products and services of different sectors and implement the best practices of applied ergonomics to enhance the user experience of badly designed products.

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of Applied Ergonomics to make students understand the relevance of comfort or functional design to enhance the overall user experience of goods and services of different industries.

- Reference Books:**
1. Advances in Ergonomics in Design by Francisco Rebelo and Marcelo Soares
  2. Human Factors and Ergonomics in Practice by Steven Shorrock and Claire Williams
  3. Human Factors and Ergonomics Design Handbook Barry Tillman, Rhonda Renee Rose, Wesley E. Woodson
  4. Handbook of human factors in web design by Kim-Phuong L. Vu, Robert W. Proctor

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Implement the best practices of applied ergonomics to enhance the user experience Design	L3
CO2	Able to integrate comfort design features keeping ergonomics design guidelines as the basis.	L3, L4
CO3	To be able to analyze those features affecting the ergonomic aspect of the design.	L4
CO4	Able to execute the design not only from the aesthetical point of view but also from the functional point of view.	L3, L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	M	M	H	L	M	H	H	H	H	H	M	L
CO2	L3, L4	H	H	M	H	L	L	M	H	H	M	M	L	H
CO3	L4	H	M	M	H	L	M	M	H	H	H	H	H	L
CO4	L3, L4	H	H	H	H	L	H	M	H	H	H	M	L	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3, CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4
CD3	Seminars / Presentations	CO1,CO2,CO3, CO4
CD4	Project Discussions	CO1,CO2,CO3, CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3, CO4



**Semester** : **Fifth 3<sup>rd</sup>Year**  
**Subject Name** : **SUSTAINABLE DESIGN**  
**Subject Code** : **BD510 SD**

**Course Objectives:**

- To make students empathize with the environment and understand a 360 degree perspective of sustainability
- To make students understand that design sustainability = design responsibility
- To learn the tools used for making a sustainable design
- To able to innovate a sustainable solution for an existing problem

**Course Content:****Unit I Understanding Sustainability**

- Learning Sustainability and it's aspects(what is sustainability, history, why it is needed), case studies on sustainable designs, exercise on recognizing a sustainable design. Understand Recycle, Reuse and Up cycle. Sustainable lifecycle.

**Unit II Sustainable Design as a Responsibility**

- What is a responsible design? Sustainable Design is not only environmentally responsible but also consumer responsible. How a designer can develop a design sustainably? Factors to create a sustainable design. Sustainability indicators

**Unit III Tool for Designing Sustainably (18 hours)**

- Causal loop diagram, Life Cycle Assessment (LCA), Whole system mapping,

**Unit IV Project**

- Design a solution (physical or digital) for an existing environmental problem

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of Sustainable Design to make students understand the relevance of sustainable design to enhance the overall user experience of goods and services of different industries.

- Reference Books:**
1. Cause and Effect by Robert Klanten
  2. Cradle to Cradle: Remaking the Way We Make Things by William McDonough
  3. Design for a Living World by Ellen Lupton and J. Abbott Miller, eds.
  4. The Sustainable Design Book by Rebecca Proctor

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To understand the core of sustainability	L2, L3, L4, L5
CO2	To learn how sustainable design is the need of an hour	L5
CO3	To realize their environmental roles as a responsible designer	L4
CO4	A deeper understanding of a product's environmental lifecycle	L3, L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3, L4, L5	H	M	L	H	-	M	H	H	H	H	H	M	L
CO2	L5	H	H	L	H	-	L	M	H	H	M	M	L	H
CO3	L4	H	M	L	H	-	M	M	H	H	H	H	H	L
CO4	L3, L4, L5	H	H	L	H	-	H	M	H	H	H	M	L	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3, CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4
CD3	Seminars / Presentations	CO1,CO2,CO3, CO4
CD4	Project Discussions	CO1,CO2,CO3, CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3, CO4

**Semester** : **Fifth 3<sup>rd</sup>Year**

**Subject Name** : **ANANDAM**

**Subject Code** : **BD511**

**Course Objective** :

- To instil the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:**

**Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs**

- I. From the Anandam Platform
  - a. An online platform to manage and share service opportunities
  - b. A list of suggested programs or volunteering organizations.
  - c. Training for faculty members on how to facilitate the Anandam program
- J. From the University
  - a. Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
  - b. The act of goodness will not be evaluated, just if it was recorded or not
  - c. The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
  - d. Mentors to guide and review the student's activities on an regular basis
  - e. There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

## B. Design, Semester-VI, III yr. (4 yrs. Degree Course)

## SESSIONALS

S. No.	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD601 ID-A	Interaction Design Advance	CORE	60	40	100	2	2	3
2	BD602 UXDF	UX Design for futuristic technologies	CORE	60	40	100	3	2	4
3	BD603 UXDR	UX Design for rural India	CORE	60	40	100	2	4	4
4	BD604 UID-A	UI Development Advance	SEC	60	40	100	3	2	4
5	BD605 ISUX	Industry specific UX Design	SEC	60	40	100	1	4	3
6	BD606 ISUX-A	Integrated studio for UX	SEC	60	40	100	1	6	4
7	BD607/608/609/610 OR BD611	Electives OR Professional Skills (Career and Team)	DSE	60	40	100	1	2	2
8	BD613	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>14</b>	<b>23</b>	<b>26</b>

**Semester** : **Sixth 3<sup>rd</sup>Year**  
**Subject Name** : **Interaction Design Advance**  
**Subject Code** : **BD601 ID-A**

**Course Objectives:**

- To be able to understand micro-interactions in detail
- Have a hands on tools and prototyping practice
- To be able to generate new ideas
- Get to understand technologies and connect with emotional design

**Course Content:**

<b>Unit I</b>	Introduction to micro-interactions  To evoke emotions and activity (to compel the user to do something), four triggers of micro-interactions.
<b>Unit II</b>	Rapid prototyping techniques <ul style="list-style-type: none"><li>• Tools and methods of rapid prototyping for idea generation Crazy 8, Scamper, 6 thinking hat</li></ul>
<b>Unit III</b>	Multi-Screen Interaction design <ul style="list-style-type: none"><li>• Service design case studies - ATM/Healthcare for multi-screen interaction design Practice &amp; Project based</li></ul>
<b>Unit IV</b>	Unit 4: Designing for futuristic technologies <ul style="list-style-type: none"><li>• Interaction design for gesture controls. Designing interactions for futuristic technologies – voice, AI. Project based on sound/voice and gesture controls</li></ul>
<b>Unit V</b>	Emotional Design <ul style="list-style-type: none"><li>• 7 types of emotions- Example as case study for each emotion. Develop your own emotional study on any product/situation. How to manage emotions in interaction design. E.g.: Nostalgic in social media (Facebook feature)</li></ul>
<b>Unit VI</b>	Project

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books**

- 1 Seductive Interaction Design: Creating Playful, Fun, and Effective User Experiences- by Stephen P. Anderson
- 2 Designing Web Interfaces: Principles And Patterns For Rich Interactions- by Bill Scott, TheresaNeil
- 3 Designing Interfaces: Patterns for Effective Interaction Design - By Jennifer Tidwell
- 4 Micro interactions: Designing with Details- by Dan Saffer

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual insights of micro-interactions in detail	L3
CO2	Perform a hands on tools and prototyping functions	L6
CO3	Generate new ideas with the help of different Techniques	L4, L5, L6
CO4	Execute technologies and connect with emotional design	L3, L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	-	M	L	M	L	M	M	M	L	M	H	M	L
CO2	L6	-	M	M	M	H	H	H	H	M	H	M	L	H
CO3	L4, L5, L6	-	H	M	M	H	H	M	M	M	H	H	H	L
CO4	L3, L4	M	M	M	L	M	H	M	M	L	H	M	L	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

**Semester** : **Sixth** **3<sup>rd</sup>Year**  
**Subject Name** : **UX DESIGN FOR FUTURISTIC TECHNOLOGIES**  
**Subject Code** : **BD602 UXDF**

**Course Objectives:**

- To be able to have an understanding on futuristic technologies
- To be able to practice and implement UX for the technologies
- To be able to implement after understanding on different platforms

**Course Content:**

**Unit I** Designing for AR

- What is augmented reality, Examples, Case studies on augmented reality, implementing augmented reality in different industry domains Project based

**Unit II** Designing for VR

- What is virtual reality, Examples, Case studies on virtual reality, implementing augmented reality in different industry domains Project based

**Unit III** Introduction to Internet of things (IOT)

- What is Internet of things, Examples, Case studies on IOT, Implementing IOT in different industry domains Project based

**Unit iv** Project

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books** :

1. Designing for Wearables: Effective UX for Current and Future Devices- by Scott Sullivan(Author)
2. Designing Bots: Creating Conversational Experiences- by AmirShevat
3. Designing for Emerging Technologies: UX for Genomics, Robotics, and the Internet of Things- by JonathanFollett

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Apply conceptual understanding on futuristic technologies to enhance user experience	L3, L4
CO2	Formulate new ways of implementation of technologies in new ideas	L4, L5
CO3	Identify scope in products to implement different technologies on different platforms	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L4	L	M	L	M	L	M	M	M	M	H	H	M	L
CO2	L4, L5	L	M	M	M	M	M	M	H	M	H	M	L	H
CO3	L4, L5, L6	M	H	M	H	H	M	H	H	M	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO2,CO3



**Semester** : **Sixth 3<sup>rd</sup>Year**  
**Subject Name** : **UX DESIGN FOR RURAL INDIA**  
**Subject Code** : **BD603 UXDR**

**Course Objectives:**

- Understanding the need of innovation in rural areas
- To be able to understand the users and suggest ideas
- To able to create ethnography study and analyze it

**Course Content:**

**Unit I** Project based

- Ethnographic study of rural India. Creating UX for low bandwidth regions. Digitalization for the bottom of the pyramid. Localization of experience

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books** :

1. Designing for the Indian rural population: Interaction design challenges- Researchpaper
2. Experiences designing a voice interface for rural India- Researchpaper

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Implement innovative ideas to rural problems.	L3
CO2	Conduct Ethnography study effectively and efficiently.	L5, L6
CO3	Gather data collection and analyze it.	L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internet

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	M	M	L	M	L	M	M	M	L	M	H	M	L
CO2	L5, L6	H	H	M	H	L	L	H	H	H	H	M	L	H
CO3	L4, L5	H	H	M	H	L	L	H	H	H	H	H	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internet	CO1,CO2,CO3

**Semester** : **Sixth 3<sup>rd</sup> Year**  
**Subject Name** : **UI DEVELOPMENTADVANCE**  
**Subject Code** : **BD604 UID-A**

**Course Objectives:**

- Understanding the guidelines for front end developer and back end developer
- To be able to understand the language of designers and developers
- To able to implement visuals to working development
- To be able to learn tools in detail

**Course Content:**

**Unit I** Project and Practice based:

- Project in front end development using HTML, CSS and other UI development technologies

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Reference Books :**

1. Responsive web design with HTML 5 and CSS 3- Ben Frain
2. CSS mastery: Advance web standards Solutions- AndyBudd
3. HTML and CSS: Design and Build Websites- JohnDuckett
4. Learn HTML and CSS with w3Schools-W3Schools
5. Mastering HTML, CSS & Javascript Web Publishing- Laura Lemay, Rafe Colburn, JenniferKyrnin

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual understanding of the guidelines for front end developer and back end developer	L3
CO2	Comprehend the language of designers and developers	L5, L6
CO3	Implement the knowledge of visuals to working development	L4, L5
CO4	Perform tasks on tools	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	-	H	M	L	H	H	H	H	L	H	H	M	L
CO2	L5, L6	-	H	M	L	H	H	H	H	L	H	M	L	H
CO3	L4, L5	-	H	H	L	H	H	H	H	L	H	H	H	L
CO4	L6	-	H	H	L	H	H	H	H	L	H	M	L	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3

**Semester** : **Sixth 3<sup>rd</sup> Year**  
**Subject Name** : **INDUSTRY SPECIFIC UXDESIGN**  
**Subject Code** : **BD605 ISUX**

**Course Objectives:**

- To be able to implement the grasp the different industries
- To be able grasp the working and concepts of different domains

**Course Content:**

**Unit I** Project based:

- Experience design case studies in banking, retail, insurance, media, healthcare, pharma, logistics & travel, education

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving practice based assignments along with studio and class presentations.

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain insightful information of different industries	L3
CO2	Implement the conceptual understanding of different industries to enhance user experience	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	M	H	L	M	L	L	M	M	L	H	H	M	L
CO2	L5, L6	M	H	L	M	L	L	M	M	M	H	M	L	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1, CO2
CD2	Tutorials/Assignments	CO1, CO2
CD3	Seminars / Presentations	CO1, CO2
CD4	Project Discussions	CO1, CO2
CD5	Self- learning advice using internets	CO1, CO2

**Semester** : **Sixth 3<sup>rd</sup> year**  
**Subject Name** : **INTEGRATED STUDIO FOR UX–ADVANCE**  
**Subject Code** : **BD607 ISUX-A**

**Course Objectives:**

1 Implement the learnings in a project on any one industry

**Course Content:**

**Unit I**

Project based:

- On UX design implementation with industry relevant problem statement including 6Dprocess

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the delivery of case studies and guest sessions to enhance the knowledge of implementation of UX methodologies in products.

**Project: Live project**

**References :**

1. Lean Design in Healthcare- Ward Adam
2. UX Maturity in Financial Services - Taking Customer-Centricity Seriously-Whitepaper by HFI
3. DESIGN THINKING - the new DNA of the financial sector- Whitepaper by IESE business school
4. "UX Design for Enterprise Apps: Bridge the User Experience gap in Enterprise Applications for Financial Services & Insurance"- Synechron Inc, Kapil Wadhawan, Saumen Das, Ashish Nangla, Diana Kearns- Manolatos

**Course Outcomes: On completion of the course, student will be able to:**

<b>CO</b>	<b>Statement</b>	<b>Blooms Level</b>
CO1	Execute the Implementation of the learnings in a project on any one industry	L3, L5, L6

<b>Course Delivery methods</b>	
CD1	Tutorials
CD2	Project Discussions
CD3	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L5, L6	H	H	H	H	H	H	H	H	H	H	H	M	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

<b>CD</b>	<b>Course Delivery methods</b>	<b>Course Outcomes</b>
CD1	Tutorials	CO1
CD2	Project Discussions	CO1
CD3	Self- learning advice using internets	CO1



**Semester** : **Sixth 3<sup>rd</sup>Year**  
**Subject Name** : **UX DESIGN FOR WEB**  
**Subject Code** : **BD607 UXDW**

**Course Objectives:**

- To understand what are the consumer's need when they visit a website and how to fulfill them
- To make students learn about the purpose of website
- To able to design a website using coding and software

**Course Content:**

**Unit I Understanding UX for Web**

- Aesthetics and principles of Web designing,
- Who your website users are and what they expect from the website.
- how business goals — yours or your client's — have to be uncovered and addressed for site success
- Information Architecture (IA) for Web
- 

**Unit II Website Design for Business**

- how to design your website depending upon who your visitors are,
- Including all three: whether your website is B2B (business-to-business), B2C (business-to-consumer), or an ecommerce site for selling products online.

**Unit III Coding and Software**

- HTML, Photoshop, Dreamweaver, Illustrator and exploring wordpress, wixetc

**Unit IV Project**

- A full-fledged website designed on either of three:
- B2B
- B2C
- E-commerce

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of UX Design for Web to teach students every theory and framework related to web designing and also make them familiar with how to design a website.

**Reference Books:**

1. Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability (Steve Krug) ...
2. Thinking, Fast And Slow (Daniel Kahneman)

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	A good understanding of how websites solve a business purpose	L2, L3
CO2	Knowing how to design for web	L4, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	L	M	M	H	-	M	H	H	H	H	H	M	L
CO2	L4, L6	H	H	M	H	-	L	M	H	H	M	L	H	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3, CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4
CD3	Seminars / Presentations	CO1,CO2,CO3, CO4
CD4	Project Discussions	CO1,CO2,CO3, CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3, CO4

**Semester** : **Sixth 3<sup>rd</sup>Year**  
**Subject Name** : **UX DESIGN FOR MOBILE**  
**Subject Code** : **BD608 UXDM**

**Course Objectives:**

- To understand designing for touch
- To learn a mobile environment
- To able to design a app for mobile

**Course Content:**

**Unit I Understanding UX for Mobile**

- Aesthetic and principle of mobile designing.
- Designing for android vs ios.
- Android sensors, Android APIs
- Information Architecture (IA) for Mobile Design
- Understanding the five big constraints: limited data, finite battery, hand-held usage, divided user attention(include design for interruption) and small screens
- Understanding navigation, screen orientation, touch area, Text, content, Forms, Thumb positions, minimizing user input, consistency, margins, icons/symbols, importance of back button, colors, sizing, gestures,
- Understanding the importance of on-boarding experience

**Unit II Advanced Wire framing**

- How to make Skelton screens?
- Prototyping on: Invision, Marvel, Adobe XD, Proto.io, Origami Studio (any one of the mentioned)

**Unit III Project**

- Designing an app from scratch for any field of student's interest

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of UX Design for Mobile to teach them design principles and tools and techniques with which they can build Mobile applications.

**Reference Books:**

1. UX Design for Mobile by Pablo Perea Pau Giner
2. Designing The User Interface 5th Edition by Steven Jacobs and Ben Shneiderman and Catherine Plaisant and Maxine Cohen, Pearson Education

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	A good understanding of details of mobile app	L2, L3
CO2	Knowing how to design for mobile	L4, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

COURSE OUTCOMES	Blooms Level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PSO 3
CO1	L2, L3	L	M	M	H	-	M	H	H	H	H	H	M	L
CO2	L4, L6	H	H	M	H	-	L	M	H	H	M	L	H	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2
CD2	Tutorials/Assignments	CO1,CO2
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO1,CO2
CD5	Self- learning advice using internets	CO1,CO2

**Semester** : **Sixth 3<sup>rd</sup>Year**  
**Subject Name** : **UX DESIGN FOR HMI**  
**Subject Code** : **BD609 UXDHMI**

**Course Objectives:**

- To understand the evolution of HMI and how it has impacted the world
- To make students forecast the future of HMI
- To able to innovate/design a futuristic HMI solution for an industry

**Course Content:**

**Unit I HMI Ergonomics**

- Understanding HMI, difference between UI, HMI and GUI, case studies on HMI, HMI's in everyday life, How HMIs translate complex process variables into usable and actionable information, history and evolution of HMI

**Unit II HMI in different industries**

- How HMI has impacted different industries(HMI and education, HMI in automotive etc), future of HMI, role of HMI in respect of different sectors, an exercise in which students forecast the future of HMI

**Unit III Project**

- An in depth researched project on HMI in any chosen sector and an innovative ideation of what can be the future in the same

**Unit IV**

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of UX design for HMI to explain the interaction between human and machine and how the psychology of people affects the whole process of interaction Design.

**Reference Books:**

1. 100 Rules to Design the Perfect Human Machine Interface in Vehicles by Peter Rössger

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	A good understanding of how humans have evolved and adapted HMI in their lives	L2, L3
CO2	Importance of HMI in the present world and future	L4, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	L	M	M	H	-	M	H	H	H	H	H	M	L
CO2	L4, L6	H	H	M	H	-	L	M	H	H	M	L	H	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2
CD2	Tutorials/Assignments	CO1,CO2
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO1,CO2
CD5	Self- learning advice using internets	CO1,CO2

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**B.DES.**

<b>Semester</b>	<b>:</b>	<b>Sixth</b>	<b>3<sup>rd</sup>Year</b>
<b>Subject Name</b>	<b>:</b>	<b>UX DESIGN FOR PHYSICAL PRODUCT</b>	
<b>Subject Code</b>	<b>:</b>	<b>BD610 UXDPP</b>	

**Course Objectives:**

- To understand the past, present and future of UX in physical products
- To identify the various research methods to make a good physical product in UX
- To identify types and roles of UX products
- To be able to work on a product that solves a real problem

**Course Content:****Unit I Introduction to Physical products**

- Introduction to UX in physical products and its types.
- Sketching and drawing and creating the concepts

**Unit II User research in Product design**

- Type of user research tools such as day in a life, persona, interviews, empathy maps, and journey maps.
- Creating scenarios and analyze user touch points and interaction points.
- Methodology and applied research, tools and designs.  
Ergonomics and cognitive psychology

**Unit III User interface and material study**

- User behavior and his desirability for types of physical products
- Different industries and role of UX designers.
- Material study such as plastic, paper, digital device, screens, GUI and so on with 3D modeling using blender.
- Designing big scale products and role of emerging technology in Physical products

**Unit IV Project**

- Research and design a device using real users and used cases.  
Apply 3D modeling and design interface using design tools.

**Exercise / Teaching Methodology:**

Interactive lecturer sessions involving the introduction of dynamics involved in UX Design for Physical products of different industries.

**Reference Books:**

1. Design of everyday things, Don Norman
2. Design for How People Think: Using Brain Science to Build Better Products
3. Don't make me think, Steve Krug

**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Understand the roles of skill, experience and meaning of physical products	L2, L3
CO2	Ideate for a real user, empathy and its tools and differentiate between good and bad design	L3, L4
CO3	Prototype and design using ergonomics and basic design guidelines, understand materail and Digital tools to design it.	L6
CO4	Identify some potential in real life scenario and industry relevant problem and design Physical product and its interface.	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	L	M	M	H	-	M	H	H	H	H	H	M	L
CO2	L3, L4	H	H	M	H	-	L	M	H	H	M	L	H	M
CO3	L6	H	M	M	H	-	M	H	H	H	H	H	M	L
CO4	L5, L6	H	H	M	H	-	L	M	H	H	M	L	H	M

**H- High, M- Moderate, L- Low, '-' for No correlation****Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3, CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3, CO4
CD3	Seminars / Presentations	CO1,CO2,CO3, CO4
CD4	Project Discussions	CO1,CO2,CO3, CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3, CO4



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## B.DES.

Semester	:	Sixth 3 <sup>rd</sup> Year
Subject Name	:	Professional Skills
Subject Code	:	BD 608 PS

### Course Objectives:

- To acquire career skills and fully pursue to partake in a successful career path
- To prepare good resume, prepare for interviews and group discussions
- To explore desired career opportunities in the employment market in consideration of an individual SWOT.
- Understand the significance of Team Skills and help them in acquiring them
- To help them design, develop and adapt to situations as an individual and as a team.

**Course Content:** Professional skills are part of life skills. An individual should be able to demonstrate professional skills involving the use of intuitive, logical and critical thinking, communication and interpersonal skills, not limited to cognitive/creative skills. These skills, behaviour and quality of output enhance employability.

### Unit I

#### Resume Skills

##### I. Resume Skills: Preparation and Presentation

- Introduction of resume and its importance
- Difference between a CV, Resume and Bio data
  - Essential components of a good resume

##### ii. Resume skills: common errors

- Common errors people generally make in preparing their resume
- Prepare a good resume of her/his considering all essential components

#### Presentation Skills

- Types of presentations
- Internal and external presentation
- Knowing the purpose
- Knowing the audience
- Opening and closing a presentation
- Using presentation tools
- Handling questions
- Presentation to heterogenic group

Ways to improve presentation skills over time

### Unit II

#### Interview Skills

##### Interview Skills : Preparation and Presentation

- Meaning and types of interview (F2F, telephonic, video, etc.)
- Dress Code, Background Research, Do's and Don'ts
- Situation, Task, Approach and Response (STAR Approach) for

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**B.DES.**

facing an interview

- Interview procedure (opening, listening skills, closure, etc.)
- Important questions generally asked in a job interview (open and closed ended questions)

Interview Skills : Simulation

- Observation of exemplary interviews
- Comment critically on simulated interviews

Interview Skills : Common Errors

- Discuss the common errors generally candidates make in interview

Demonstrate an ideal interview

Trust and Collaboration

- Explain the importance of trust in creating a collaborative team
- Agree to Disagree and Disagree to Agree – Spirit of Team work
- Understanding fear of being judged and strategies to overcome fear

Group Discussion Skills

- Meaning and methods of Group Discussion
- Procedure of Group Discussion
- Group Discussion- Simulation
- Group Discussion - Common Errors

**Listening as a Team Skill**

- Advantages of Effective Listening
- Listening as a team member and team leader. Use of active listening strategies to encourage sharing of ideas (full and undivided attention, no interruptions, no prethink, use empathy, listen to tone and voice modulation, recapitulate points, etc.).

**Unit III**

Exploring Career Opportunities

- Knowing yourself – personal characteristics
- Knowledge about the world of work, requirements of jobs including self-employment.
- Sources of career information
- Preparing for a career based on their potentials and availability of Opportunities

**Unit IV**

**Brainstorming**

- Use of group and individual brainstorming techniques to promote idea generation.
- Learning and showcasing the principles of documentation of team session

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**B.DES.**

outcomes

Social and Cultural Etiquette

- Need for etiquette (impression, image, earn respect, appreciation, etc)
- Aspects of social and cultural/corporate etiquette in promoting teamwork
- Importance of time, place, propriety and adaptability to diverse cultures

**Unit V**

Internal Communication

Use of various channels of transmitting information including digital and physical, to team members.

**Exercise / Teaching Methodology** :Through lectures and presentations

- Reference Books** :
1. Design Elements: Form & Space by Dennis M. Puhalla
  2. <https://www.sscnasscom.com/ssc-projects/capacity-building-and-development/training/fsit/>
  3. <https://www.sscnasscom.com/ssc-projects/capacity-building-and-development/training/gbfs/>
  4. <https://www.sscnasscom.com/ssc-projects/capacity-building>
  5. Generic and the entrepreneurial NOS at NSQF Level 4 -7.

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**B.DES.****Course Outcomes: On completion of the course, student will be able to:**

<b>CO</b>	<b>Statement</b>	<b>Blooms Level</b>
CO1	Prepare their resume in an appropriate template without grammatical and other errors and using proper syntax	L2
CO2	Participate in a simulated interview	L2
CO3	Actively participate in group discussions towards gainful employment	L3
CO4	Capture a self - interview simulation video regarding the job role concerned	L3
CO5	Enlist the common errors generally made by candidates in an interview	L3
CO6	Perform appropriately and effectively in group discussions	L2
CO7	Explore sources (online/offline) of career opportunities	L2
CO8	Identify career opportunities in consideration of their own potential and aspirations	L2
CO9	Use the necessary components required to prepare for a career in an identified occupation (as a case study).	L2
CO10	Use common technology messaging tools that are used in enterprises for flow of information and transition from command and control to informal communication during an online/offline team session	L2
CO11	Actively use and operate online team communication tools: Webinar, Skype, Zoom, Google hangout etc	L3
CO12	Appreciate and demonstrate Team Skills	L3
CO13	Participate in a digital lifestyle conversant with computers, applications, Internet and nuances of cyber security	L3
CO14	Explore (online) and identify career opportunities in consideration of their own potential and aspirations.	L2
CO15	Discuss and articulate the key requirements of an entrepreneurial exercise	L2
CO16	Empathise and trust colleagues for improving interpersonal relations	L3
CO17	Engage in effective communication by respecting diversity and embracing good listening skills	L3
CO18	Distinguish the guiding principles for communication in a diverse, smaller internal world	L3
CO19	Practice interpersonal skills for better relations with seniors, juniors, peers and stakeholders Project a good personal image and social etiquette so as to have a positive impact on building of one's chosen career	L4
CO20	Generate, share and maximize new ideas with the concept of brainstorming and the documentation of key critical ideas/thoughts articulated and action points to be implemented with timelines in a team discussion (as MOM) in identified applicable templates.	L6

**B.DES.**

<b>Course Delivery methods</b>	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions/Group Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Bloom s Level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PSO 3
CO1	L2	H	L	M	L	M	L	L	L	M	M	M	L	L
CO2	L2	M	M	H	H	M	H	H	H	H	H	M	H	H
CO3	L3	M	M	H	H	H	H	M	M	M	M	H	H	M
CO4	L3	L	L	L	M	M	M	H	H	H	H	M	M	H
CO5	L3	M	M	M	H	H	H	H	H	H	H	H	H	H
CO6	L2	L	L	L	L	L	L	L	M	M	M	L	L	L
CO7	L2	H	H	H	M	H	H	M	H	H	H	M	L	L
CO8	L2	M	M	M	M	M	M	M	M	M	M	M	H	H
CO9	L2	M	M	M	L	L	L	L	L	M	M	H	H	M
C10	L2	L	L	L	L	M	M	M	M	M	M	M	M	H
CO11	L3	M	M	M	M	M	L	L	L	L	L	H	H	H
CO12	L3	H	H	H	M	M	M	H	H	H	H	L	L	L
CO13	L3	H	H	M	M	M	M	M	M	M	M	M	M	H
CO14	L2	L	L	L	M	M	M	M	M	M	L	H	H	H
CO15	L2	H	H	H	H	M	M	M	M	H	H	L	L	L
CO16	L3	H	H	H	M	M	M	M	M	M	M	M	M	H
CO17	L3	L	L	L	L	L	M	M	M	L	H	H	H	H
CO18	L3	H	H	H	L	L	L	L	L	L	M	L	L	L
CO19	L4	L	L	L	H	H	H	H	H	H	H	M	H	H
CO20	L6	H	H	H	H	H	H	H	H	H	H	M	H	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

<b>CD</b>	<b>Course Delivery methods</b>	<b>Course Outcomes</b>
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1, CO9, CO10, CO17, CO20
CD2	Tutorials/Assignments	CO8, CO9, CO10, CO11, CO17, CO20
CD3	Seminars / Presentations	CO2, CO7, CO8, CO17,
CD4	Project Discussions/Group Discussion	CO3, CO4, CO6, CO11, CO12, CO15, CO16, CO17, CO18, CO19
CD5	Self- learning advice using internets	CO5, CO7, CO8, CO13, CO14, CO17, CO19, CO20

**Semester** : **Sixth 3<sup>rd</sup>Year**  
**Subject Name** : **ANANDAM**  
**Subject Code** : **BD612**

**Course Objective :**

- To instill the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:**

**Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs**

K. From the Anandam Platform

- An online platform to manage and share service opportunities
- A list of suggested programs or volunteering organizations.
- Training for faculty members on how to facilitate the Anandam program

L. From the University

- Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated, just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on an regular basis
- There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

CourseOutcomes	BloomsLevel	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	LO 8	PO 9	PO10	PSO 1	PSO 2	PSO 3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

## B. Design, Semester-VII, IV yr. (4 yrs. Degree Course)

## SESSIONAL

S. No.	Code	Subjects	Type	Internal Marks	End Term Ass.	Total Marks	L	S	Credits
1	BD701 GUX	Gamification and UX Design	CORE	60	40	100	2	2	3
2	BD702 HMI	Human Machine Interface	DSE	60	40	100	3	2	4
3	BD703 PDL	Product design and Lifecycle Management	AECC	60	40	100	2	4	4
4	BD704 BDM	Business UX & Design Management	CORE	60	40	100	3	2	4
5	BD705 LP	Live Project	CORE	60	40	100	1	8	5
6	BD706/707/708	Discipline centric Electives	GSE	60	40	100	1	2	2
7	BD709/710/711/712 OR BD713	Generic open Electives OR Leadership and Management Skills	GE	60	40	100	1	2	2
8	BD714	ANANDAM	AECC	60	40	100	1	1	2
		<b>GRAND TOTAL</b>		<b>480</b>	<b>320</b>	<b>800</b>	<b>14</b>	<b>23</b>	<b>26</b>



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<b>Semester</b>	:	<b>Seventh</b>	<b>4<sup>th</sup>Year</b>
<b>Subject Name</b>	:	<b>GAMIFICATION AND UX DESIGN</b>	
<b>Subject Code</b>	:	<b>BD701GUX</b>	

**Course Objectives:**

- To understand the strategy of gamification
- To learn the key ingredients of gamification
- To implement gamification for customer engagement
- To create appeal in UX design by gamification

**Course Content:****Unit I** Introduction to Gamification

- What is Gamification?
- Why is gamification so popular?
- Key ingredients of gamification – Motivation, mastery and triggers,
- Why and how gamification is not the same as game design

**Unit II** Strategy of Gamification

- The appeal of gamification in UX Design,
- Challenges in gamification,
- The power of gamification and how it can increase user engagement and fulfilment,
- How to manage, monitor, and measure the impact of gamification work

## Gamification – The play centered design

**Unit III**

- Gamification in UX -Increasing User Engagement, Types of game mechanics for UX improvement,
- Player-Centred Design: Moving Beyond User-Centred Design for Gamification

**Unit IV** Project

- Implementing Gamification in banking, healthcare, retail or management portal

**Exercise /Teaching Methodology:** Interactive lectures involving practice based assignments along with studio and class presentations.

**Reference Books:**

1. Gamify: How Gamification Motivates People to Do Extraordinary Things- by Biran Burke
2. Actionable Gamification: Beyond Points, Badges, and Leaderboards- by Yu-kai Chou(Author)
3. Gamification By Design: Implementing Game Mechanics in Web and Mobile Apps- by Gabe Zichermann (Author), Christopher Cunningham(Author)

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual understanding of the strategies of gamification	L2, L3
CO2	Comprehend the key ingredients of gamification	L3, L4
CO3	Implement gamification for customer engagement & Create appeal in UX design by gamification	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	P O1	P O2	P O3	P O4	P O5	P O6	P O7	P O8	P O9	PO 10	PS O1	PS O2	PS O3
CO1	L2, L3	M	M	H	M	M	H	M	M	M	M	M	M	H
CO2	L3, L4	H	H	-	-	-	-	M	H	H	M	H	H	H
CO3	L6	M	L	L	M	H	M	M	M	L	L	L	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2,CO3
CD4	Project Discussions	CO2,CO3
CD5	Self- learning advice using internets	CO1,CO3

**Semester** : **Seventh** **4<sup>th</sup>Year**  
**Subject Name** : **HUMAN MACHINEINTERFACE**  
**Subject Code** : **BD702 HMI**

**Course Objectives:**

- Be able to understand the interactions between human and machine
- Understanding the different machines
- Able to grasp hands-on experience of tools for creating interfaces for human and machine
- Understanding cognitive psychology and user behavior.
- Implementing the study to create interfaces for human machine interactions
- To be able to have an understanding on futuristic technologies

**Course Content:**

**Unit I** Introduction to HMI

- What is HMI? Who Uses HMI? Common Uses of HMI, What is the Difference between HMI and SCADA?

**Unit II** Trends in HMI Technology

- Understanding the different technologies of HMI,
- Past trends and current technologies,
- High Performance HMIs,
- Touch Screens and Mobile Devices, Remote Monitoring, Edge-of-Network and Cloud HMIs Case studies in detail

**Unit III** Futuristic HMI's

- Understanding the current trends, exploring ways to implement Augmented Reality (AR) and Virtual Reality (VR) to visualize manufacturing functions

**Unit IV** Project Work

- Project work on HMI which includes current trends

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based assignments along with studio and class presentations.

**Reference Books** :

1. Designing the User Interface: Strategies for Effective Human-Computer Interaction- by Ben Shneiderman (Author), Catherine Plaisant (Author), Maxine Cohen (Author), Steven Jacobs (Author), Niklas Elmqvist (Author), Nicholas Diakopoulos (Author)

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Analyze the interactions between human and machine	L3, L4
CO2	Identify the different machines and their nature of interaction	L3, L4, L5
CO3	Design interfaces for human and machine with hands-on experience of tools	L6
CO4	Gain conceptual understanding of cognitive psychology and user behavior.	L2, L3
CO5	Implementing the study to create interfaces for human machine interactions	L3
CO6	Integrate futuristic technologies to enhance human machine interaction	L3, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	PO 10	PS O1	PS O2	PS O3
CO1	L3, L4	H	M	M	H	M	M	M	M	M	M	M	M	H
CO2	L3, L4, L5	H	H	M	L	M	L	H	H	M	M	H	H	H
CO3	L6	L	L	L	M	H	-	M	M	M	M	L	L	L
CO4	L2, L3	M	M	M	M	M	M	M	M	M	M	M	M	H
CO5	L3	H	L	-	-	M	-	H	H	M	M	H	H	H
CO6	L3, L6	L	L	L	M	-	L	M	M	M	M	L	L	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4,CO5,CO6
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5,CO6
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internets	CO1,CO4

**Semester** : Seventh 4th year  
**Subject Name** : PRODUCT DESIGN AND LIFECYCLE MANAGEMENT  
**Subject Code** : BD703 PDL

**Course Objectives:**

- Understanding the cycle of product design
- Be able to find and execute the technology required
- Understanding the importance of product management
- To be able to execute the cycle of product management

**Course Content:**

**Unit I** Introduction to Product lifecycle management

- What is Product Lifecycle Management (PLM)? What is the Product Life Cycle? Product life cycle stages, Benefits, areas of PLM

**Unit II** Product Development Platform

- PLM, Supply Chain Collaboration, ALM and QMS, Multi-Tenant Cloud-Based PLM Software, How Arena Provided the All-In-One Product Development Platform Apical Instruments Needed. Phases of product lifecycle and corresponding technologies.

**Unit III** Product Lifecycle Management Integration

- Rootstock Product Lifecycle Management Integration, Shared Product Information, How the Integration Works

Project Work

- Project work on PLM

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based assignments along with studio and class presentations.

**Reference Books:**

1. A Project Guide to UX Design: For user experience designers in the field or in the making- by Russ Unger, Carolyn Chandler
2. UX Lifecycle- by Val Head
3. Hooked: How to Build Habit-Forming Products- by Nir Eyal

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain conceptual understanding on cycle of product design	L2, L3
CO2	Integrate the technology required on Product development Platforms.	L4, L5, L6
CO3	Analyze the challenges of product management	L4, L5
CO4	Execute the cycle of product management	L4, L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internet

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	M	M	M	H	M	M	H	M	M	M	M	M	M
CO2	L4, L5, L6	H	H	L	-	L	M	H	H	M	M	M	H	H
CO3	L4, L5	L	L	M	M	-	L	M	M	M	M	M	L	L
CO4	L4, L5	L	L	M	M	-	L	M	M	M	M	M	M	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3
CD2	Tutorials/Assignments	CO1,CO2,CO3
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO1,CO2,CO3
CD5	Self- learning advice using internet	CO2,CO3

**Semester** : **Seventh** **4<sup>th</sup>Year**  
**Subject Name** : **BUSINESS UX AND DESIGN MANAGEMENT**  
**Subject Code** : **BD704 BDM**

**Course Objectives:**

- Understanding business in UX
- Understanding the strategy involved in UXbusiness
- Implementing design management in product design andbusiness
- Understanding designmanagement

**Course Content:**

- Unit I** Business UX
- Understanding How a UX approach can help anybusiness,
  - The Business Value of UX Design, Strategybuilding,
  - Aspects of key guidelines in UX business, values and emotions of user Behavior and cognitive psychology of market andbusiness,
  - Designpolicies
- Unit II** Design Management
- What is design management, Different types, Taking Charge of Processes andPeople
  - The Evolution of DesignManagement,
  - Areas of DesignManagement,
  - Why Does Design ManagementMatter?
  - Where Does Design Management Fall withinBusinesses?
- Unit III** Project
- Understanding Design management and UXbusiness

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based Assignments along with studio and class presentations.

**Reference Books:**

1. Design Management - Managing Design Strategy, Process and Implementation Successful Product Design and Management ToolkitDesign for Business

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain insightful understanding on business inUX	L2, L3
CO2	Implementing the strategies involved in UXbusiness	L3, L4
CO3	Organize design management in product design andbusiness	L5
CO4	Execute and create framework of Design management	L3, L4

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	M	M	M	M	M	M	H	M	H	L	M	M	M
CO2	L3, L4	H	H	L	L	M	L	H	H	M	M	L	M	H
CO3	L5	L	L	L	M	-	L	M	M	M	M	M	H	L
CO4	L3, L4	L	L	L	M	L	L	M	M	M	M	M	M	M

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO4
CD4	Project Discussions	CO1,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4



**Semester : Seventh 4th Year**  
**Subject Name: LIVE PROJECT**  
**Subject Code : BD705 LP**

**Course Objectives:**

- To be able to start with Live Industry Specific Project
- To be able develop self confidence in handling the same

**Course Content:**

**Unit I** Live Project should be in any one domain and should be technology driven and aesthetically done to be able to strategically prove its importance in the real-time world.

**Exercise / Teaching Methodology:** Field research with secondary research along with application of research methods for data collection under faculty guidance.

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Allow to experience practical domains of a project environment	L3, L6
CO2	Execute the whole process and methods involved in Live project	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3, L6	M	M	M	M	M	M	H	M	H	L	L	M	H
CO2	L4, L5, L6	H	H	L	L	M	L	H	H	M	M	M	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2
CD2	Tutorials/Assignments	CO1,CO2
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO1,CO3
CD5	Self- learning advice using internets	CO1,CO2

**Semester** : **Seventh 4th year**  
**Subject Name** : **DESIGNING FOR WEARABLES**  
**Subject Code** : **BD706 DW**

**Course Objectives:**

- To understand the past, present and future of wearable devices
- To identify the various sectors and industries and how they have implemented it
- To identify types and roles of wearable devices
- To be able to conceptualize a wearable device

**Course Content:**

**Unit I Introduction to Wearable devices**

- What is a wearable device? History and evolution. Companies manufacturing and how has it impacted a customer.

**Unit II Types of wearable devices**

- Types of wearable devices.
- Technologies used in designing them.
- Case study and Industry constrains

**Unit III Tools and innovation**

- Use persona, empathy maps and CJM to understand the various touchpoints.
- User behavior and his desirability for wearable devices
- Gestures-Bite sized information, non-intrusive design.
- Synchronization, design and aesthetics of a wearable design from a user's point of view

**Unit IV Project**

- Research and design a device using real users and used cases. Apply 3D modeling and design interface using design tools.

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based assignments along with studio and class presentations.

**Reference Books:**

- 1 Designing for wearable devices.Effective UX for Current and Future Devices author Scott Sullivan
- 2 Design for How People Think: Using Brain Science to Build Better Products

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Understand the roles of skill, experience and meaning of wearable device.	L1, L2
CO2	Ideate for a real user, empathy and its tools	L3, L4
CO3	Prototype and design using ergonomics and basic design guidelines	L6
CO4	Identify some potential in real life scenario and industry relevant problem and design a wearable device and its interface	L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	M	M	M	H	M	M	H	M	M	M	L	M	H
CO2	L3, L4	H	H	L	H	M	M	H	H	M	M	M	H	L
CO3	L6	L	L	M	M	M	L	M	M	M	M	L	M	H
CO4	L5, L6	H	H	M	H	M	M	M	M	M	M	M	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO2,CO3,CO4

**Semester** : **Seventh 4th year**  
**Subject Name** : **DESIGNING FOR SMART TV'S**  
**Subject Code** : **BD707 DST**

**Course Objectives:**

- To understand how a Smart TV works
- To learn smart TV environment and whole ecosystem
- To be able to design an app for Smart TVs to enhance user experience

**Course Objectives:**

**Unit I Introduction to Smart TVs**

- What is a smart TV, Evolution and history(generation of TV and contents), what purpose do TVs solve today in the era of Netflix, YouTube, online channels, laptops and mobile phones along with deeply understanding the consumer group of smart TVs. Understanding that TV is a shared device.
- TVs and Gaming – Xbox
- Remote control in a smart TV. Bluetooth Keyboard/mouse
- Understanding TV UI and its Importance.
- Case studies on smart TVs talking about LG, Samsung, Korean Tech, Apple TV, Android TV, Roku TV, Panasonic etc

**Unit II Application of designing interactive TV experience**

- TV appropriate apps and Designing for TV Apps, Smart TV interface, Information Architecture for TV.
- Understanding navigation, screen, contrast, focus state, different standards among various platforms, content, screen size and resolution, color, typography, list view vs detail view, visual hierarchy, search and density.
- 10-foot UI

**Unit III Project**

- Designing an app for smart TV that can also be controlled via smart phones.

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based assignments along with studio and class presentations.

**Reference Books:**

1. Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines by Jeff Johnson
2. Designing Multi-Device Experiences: An Ecosystem Approach to User Experiences across Devices by Michal Levin

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	A good understanding of details of a Smart TV from UX point of view	L1, L2
CO2	Knowing how to design for Smart TV screens	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	M	M	M	H	M	M	H	M	M	M	L	M	H
CO2	L6	H	H	L	H	M	M	H	H	M	M	M	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2
CD2	Tutorials/Assignments	CO1,CO2
CD3	Seminars / Presentations	CO1,CO2
CD4	Project Discussions	CO1,CO2
CD5	Self- learning advice using internets	CO1, CO2

**Semester** : **Seventh 4th year**  
**Subject Name** : **DESIGNING FOR INTERNET OF THINGS**  
**Subject Code** : **BD708 DIOT**

**Course Objectives:**

- To understand the past, present and future of emerging technology
- To identify the various sectors and industries and how they have implemented it
- To understand the tools used in IOT
- To be able to innovate and apply IOT to an existing problem

**Course Content:**

**Unit I Introduction to Internet of things**

- What is IoT? The 5 internet revolutions? Evolution and its application. Past present and future of IOT

**Unit II IOT in various industries**

- IOT used in various sectors such as education, construction, healthcare, agriculture. Famous works in the field of IOT. How does IOT help in solving a big problem and case study. Role of a UX designer, developer and other experts in IOT. Job roles and opportunities.

**Unit III Tools and innovation**

- Tools used to design an IOT interface, sensors, connectivity and function
- Data and IOT and cloud computing
- Design and code, interfaces and problem solving with IOT.
- IOT devices and its functions, hardware, software, used cases (seebo.com), ergonomics.

**Unit IV Project**

- Research and working on an industry relevant problem. How can we provide solutions using IOT in any sector or a house problem? Explain the mechanics.

**Exercise / Teaching Methodology:** Interactive lecturer sessions involving the practice based assignments along with studio and class presentations.

**Reference Books:**

1. The Amazon Way on IoT: 10 Principles for Every Leader from the World's Leading Internet of Things Strategies
2. Book by John Rossman
3. User Experience Design for the Internet of Things by Claire Rowland

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Understand the roles of skill, experience and meaning of IOT	L2
CO2	Ideate for a technology driven future	L3, L4
CO3	Jobs roles, tools and role in UX/UI	L2, L3, L5
CO4	Identify some potential in real life scenario and industry relevant problem	L5

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2	M	M	M	H	M	M	H	M	M	M	L	M	H
CO2	L3, L4	H	H	L	H	M	M	H	H	M	M	M	H	L
CO3	L2, L3, L5	L	L	M	M	M	L	M	M	M	M	L	M	H
CO4	L5	H	H	M	H	M	M	M	M	M	M	M	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Seminars / Presentations	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO2,CO3,CO4



**Semester** : **Seventh 4<sup>th</sup> year**  
**Subject Name** : **Painting**  
**Subject Code** : **BD709 P**

**Course Objectives:**

- To provide the concept clarity of fundamentals of painting
- To help students explore the endless possibilities of painting techniques
- To develop both unique approaches to materials and their aesthetic decision-making.
- To develop new ways of thinking, seeing, and creating.

**Course Content**

- Unit I** Basics of Painting
- History of Painting,
  - Painting & its types
  - Common painting media- oil, acrylic, watercolors,
  - Common forms of painting- panel, miniature, mural
  - Basics of painting – shapes, Lines, tones, textures, shades
  - 2d painting
- Unit II** Shapes and forms
- Creating layout, shape, line & shadows, shine, Overlap, Texture detail, 3D Painting
  - Perspective using forms, cuboid, prisms, cones, sphere.
- Unit III** Still and real-life painting
- Application learning with still life, real life painting
- Unit IV** Painting Techniques
- One-point perspective, Two-point perspective, Three-point perspective, linear perspective, aerial perspective
  - Panel painting, graffiti, fresco painting, miniature painting
- Unit V** Painting human figure
- Human Anatomy- Proportion drawing using shapes and drawing human figure composition. John Muir Law

**Notes** : Sessional are to be done in the form of paintings on drawing Sheets and proportionate artwork on above topics. Sessional will be evaluated continuously in class.

**Exercise / Teaching Methodology**

: Hands on Practice sessions to impart the painting skills by keeping different types of brushes as the medium for rendering or stroking.

**Reference Books** :

1. Fundamentals of Drawing and Painting by Richard Taylor.
2. Landscape Painting by Mitchell Albala.
3. 1500 color mixing recipes for Oil, acrylic and Watercolor by William F Powell.
4. Fine Art tips with Lori McNee: Painting Techniques and Professional advice

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To become familiar with the basic methods, techniques & tools of painting	L1, L2
CO2	To take part in a community of artists	L5, L6
CO3	To undertake the challenging and nuanced process of painting	L3, L4
CO4	Develop a working concept of what it means to paint.	L6
CO5	Develop new ways of thinking, seeing, and creating.	L6
CO6	Build confidence through exercises that help them explore different types of mediums and forms	L5, L6

Course Delivery methods	
CD1	Lectures by use of boards/LCD projectors/OHP projectors
CD2	Guest lectures/ Seminars/ Presentations
CD3	Assignments/Tutorials/exhibitions/Participation in competitions
CD4	Self- learning advice using internets
CD5	Project Discussions

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2	-	L	H	M	L	M	L	M	L	H	L	M	H
CO2	L5, L6	-	L	H	M	-	M	M	H	M	H	M	H	L
CO3	L3, L4	L	L	M	H	-	H	M	H	H	H	L	M	H
CO4	L6	-	M	H	M	L	M	L	H	M	H	L	M	H
CO5	L6	-	M	H	M	L	H	L	H	M	H	M	H	L
CO6	L5, L6	-	M	H	M	L	M	M	H	M	H	L	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lectures by use of boards/LCD projectors/OHP projectors	CO1,CO4,
CD2	Guest lectures/ Seminars/ Presentations	CO2,CO3,CO5
CD3	Assignments/Tutorials/exhibitions/Participation in competitions	CO1,CO2,CO3,CO4,C O5,CO6
CD4	Self- learning advice using internets	CO2,CO3, CO5,CO6
CD5	Project Discussions	CO1,CO2,CO3,CO4,C O5,CO6

**Semester** : **Seventh 4<sup>th</sup> Year**  
**Subject Name** : **Photography**  
**Subject Code** : **BD710 PH**

**Course Objectives:**

- Learn the basics of photography
- To develop the conceptual clarity of working of camera
- To understand the different shooting scenarios
- To develop new ways of capturing abstract yet meaningful themes
- To gain insights into image editing

**Course Content**

- Unit I** Basics of Photography
- History of photography
  - What makes a good photo; photography rules- balancing elements, leading line, viewpoint, depth background, Rule of thirds, golden ratio, perspective and angles, balance and symmetry
  - Common photography techniques – composition techniques, lighting techniques
- Unit II** Anatomy of a photography tool – Camera
- Main features of camera, different types of camera – DSLR, Mirror less, camera’s sensors
  - How does a camera work- shutter speed, aperture, depth of field, focal distance,
  - metering modes, exposure triangle, exposure modes- manual, automatic, dynamic range, HDR and bracketing
- Unit III** Shooting different scenarios
- Family portraits, landscape, aerial, product, wildlife
  - Shooting portraits with wide lens vs telephoto lens
- Unit IV** Photo editing and its tools
- Different resolutions, file types- RAW vs JPEG
  - Adobe Photoshop, Adobe Photoshop Light room and image editing

**Exercise / Teaching Methodology**

: Interactive lecturer sessions involving studio and field work to explore the possibilities of photography.

- Reference Books** : 1. Understanding Exposure by Bryan Peterson  
2. Better photo basics by Jim Motke  
3. Photoshop for photographers by John Slawo  
4. Extraordinary Everyday Photography By Brenda Tharp And Jed Manwaring



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	To become familiar with the basic methods, techniques & tools of photography	L1, L2, L3
CO2	To take part in a community of photographers and photo artists	L5, L6
CO3	To undertake the challenging and nuanced process of photography	L3, L4
CO4	Develop a working concept of what it means to capture photos.	L6
CO5	Develop new ways of thinking, visualizing, and creating.	L6

Course Delivery methods	
CD1	Lectures by use of boards/LCD projectors/OHP projectors
CD2	Guest lectures/ Seminars/ Presentations
CD3	Assignments/Tutorials/exhibitions/Participation in competitions
CD4	Self- learning advice using internets
CD5	Project Discussions

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2, L3	L	M	M	M	H	M	L	M	L	H	L	M	H
CO2	L5, L6	L	H	H	M	H	M	M	H	M	H	M	H	L
CO3	L3, L4	L	H	M	H	H	H	M	H	H	H	L	M	H
CO4	L6	L	M	H	M	H	M	L	H	M	H	L	M	H
CO5	L6	M	H	H	M	H	H	L	H	M	H	M	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lectures by use of boards/LCD projectors/OHP projectors	CO1,CO4
CD2	Guest lectures/ Seminars/ Presentations	CO1, CO2,CO3,CO4, CO5
CD3	Assignments/Tutorials/exhibitions/Participation in competitions	CO1,CO2,CO3,CO4,CO5
CD4	Self- learning advice using internets	CO1,CO2,CO3, CO4, CO5
CD5	Project Discussions	CO1,CO2,CO3,CO4

**Semester** : **Seventh** **4<sup>th</sup> Year**  
**Subject Name** : **CLAY MODELLING**  
**Subject Code** : **BD711 CM**

**Course Objectives:**

- To understand the fundamentals of Clay Modelling
- To gain insights into the different steps involved in clay modelling procedure.
- To be able to implement the clay modelling techniques
- To develop knowledge regarding the different types of clay available
- To be able to learn how to create 2D and 3D clay products

**Course Content**

- Unit I** Basics of Clay Modelling
- History of clay modelling – Evolution, contemporary clay modelling artists
  - Difference between Clay modelling and Clay sculpting
  - Procedure of clay modelling
  - Techniques of clay modelling – hand building techniques- Pinch pottery, coil building, and slab building
- Unit II** Exploring different types of Clay
- Water based clay, Oil based clay, Dough Clay, paper Clay, Ceramic clay- Earthenware Clay, Stoneware Clay
- Unit III** Exploring different forms
- Abstract shapes and forms
  - Simple to Complex forms like cactus, boats, birds, vases
- Unit IV** Project
- Application learning by building utility products of everyday use

**Notes:** Mid Term Exam shall be as of Unit I to III.

Sessional will be in the form of drawings and models.

**Exercise / Teaching Methodology**

:Interactive lecturer sessions involving practice based assignments along with studio and class Presentations.

- Reference Books** :
1. Clay Modelling for Beginners by Jeanie Hirsch
  2. Hinged Clay Bracelets by Gloria Uhler
  3. Working with Polymer Clay by Lori Wilkes
  4. Making Gifts in Polymer Clay by Stacey Morgan

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Understand the fundamentals of Clay Modelling	L1, L2, L3
CO2	Be able to model simple and complex clay products	L2, L3
CO3	Implement the different clay modelling techniques	L3, L4
CO4	Identify the appropriate kind of clay and technique for creating specific product.	L4, L5
CO5	Enhanced the Hand building skills	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Practice based sessions
CD4	Presentations/exhibitions
CD5	Project Discussions
CD6	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L1, L2, L3	L	M	H	M	L	-	L	H	L	M	L	M	H
CO2	L2, L3	L	M	H	M	L	-	L	M	L	M	M	H	L
CO3	L3, L4	L	M	H	M	L	-	L	M	L	M	L	M	H
CO4	L4, L5	L	M	H	M	L	-	L	M	L	M	L	M	H
CO5	L6	M	M	H	M	L	-	L	M	L	M	M	H	L

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4,CO5
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4,CO5
CD3	Practice based sessions	CO2, CO3, CO4, CO5
CD4	Presentations/Exhibitions	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4,CO5
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4,C05

**Semester** : **Seventh** **4<sup>th</sup> Year**  
**Subject Name** : **PAPER MODELLING**  
**Subject Code** : **BD712 CM**

**Course Objectives:**

- To understand the fundamentals of Paper Modelling
- To gain insights into the different steps involved in paper modelling procedure.
- To be able to implement the paper modelling techniques
- To be able to learn how to create 2D and 3D paper models

**Course Content**

- Unit I** Basics of Paper Modelling
- History of Paper modelling – Evolution, contemporary paper modelling artists
  - Paper Modelling as a craft – Paper Mache, Quilling, Origami, Card making, Scrapbooking, Paper Cutting
  - Techniques of Paper modelling – Scoring and Folding, Cutting out, Laying out, Gluing
- Unit II** Exploring different types of Paper
- Offset paper, Matte Inkjet Paper, Glossy Inkjet Paper, Briefcard Paper, Stardream Paper, Art Paper
- Unit III** Exploring different forms
- Abstract shapes and forms – Folding patterns
  - Simple to Complex forms like Boxes, Boats,
- Unit IV** Project
- Creating Paper models by implementing the different techniques

**Notes:** Mid Term Exam shall be as of Unit I to III.

Sessional will be in the form of drawings and models.

**Exercise / Teaching Methodology**

:Interactive lecturer sessions involving practice based assignments along with studio and class Presentations.

**Reference Books:**

1. Paper Modelling by M.Swannell
2. Star Wars Origami by Karol Kafarski
- 3 Paper Cut: An explanation into the contemporary world of Paper craft Art and Illustration By Owen Gildersleeve



**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Integrate the basics of fundamentals of Paper Modelling	L2, L3
CO2	Implement the different techniques involved in Paper Modelling	L3, L4
CO3	Identify the type of paper suitable for creating different paper models	L3, L4, L5
CO4	Execute the Hand building skills like Pasting, cutting, quilling to create simple and complex paper models	L4, L5, L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Practice based sessions
CD4	Presentations/exhibitions
CD5	Project Discussions
CD6	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L2, L3	L	M	H	M	L	M	L	M	-	M	L	M	H
CO2	L3, L4	L	M	H	M	M	M	L	M	-	M	M	H	L
CO3	L3, L4, L5	M	M	H	M	M	M	L	M	-	M	L	M	H
CO4	L4, L5, L6	M	M	H	M	M	M	L	M	-	M	L	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1,CO2,CO3,CO4
CD2	Tutorials/Assignments	CO1,CO2,CO3,CO4
CD3	Practice based sessions	CO1,CO2, CO3, CO4,
CD4	Presentations/Exhibitions	CO1,CO2,CO3,CO4
CD4	Project Discussions	CO1,CO2,CO3,CO4
CD5	Self- learning advice using internets	CO1,CO2,CO3,CO4

<b>Semester</b>	:	<b>Seventh</b>	<b>3<sup>rd</sup>Year</b>
<b>Subject Name</b>	:	<b>LEADERSHIP &amp; MANAGEMENT SKILLS</b>	
<b>Subject Code</b>	:	<b>BD713 LMS</b>	

**Course Objectives:**

- The study of this subject is to acquaint the students, while giving basic information about various aspects of the profession, conduct and responsibilities and procedures of Architectural profession.
- The architectural profession and its regulatory and statutory bodies.
- Develop an understanding of legal liabilities and obligations as an architect and the importance of code of conduct and ethics in professional practice.
- To help students to develop essential skills to influence and motivate others
- To inculcate emotional and social intelligence and integrative thinking for effective leadership
- To create and maintain an effective and motivated team to work for the society
- To nurture a creative and entrepreneurial mindset
- To make students understand the personal values and apply ethical principles in professional and
- social contexts.

**Course Content:**

Leaders are foundations of the society, who face and win against adversities and odds of life. Through their words and deeds, they show path to others and transform into inspirational role models, affecting social life vividly. In the current times of cut-throat competitions, disbelief in values, techno-centric Complex lifestyles, there is a dire need to emphasize the ‘human’ agency in community living. This can be done by cultivating and nurturing the innate leadership skills of the youth so that they may transform these challenges into opportunities and become torch bearers of the future by developing creative solutions.

**Unit I** The designer and his office, relationship with clients, consultants, stakeholders. Legal responsibilities of designers, code of professional practice, fees, design competitions and design standards

- Code of professional conduct.
- Condition of engagement and scale of professional fees.
- Copyright Act as applicable to design and craft sector.
- Design competitions.
- Concept of Contract.
- Duties and liabilities of designers, duties and liabilities of stakeholders.
- Articles of agreement, execution of works and payments.
- Laws pertaining to designs like Patent, Copyright, Geographical Index
- Leadership Skills
- Understanding Leadership and its Importance
  - What is leadership?
  - Why Leadership required?
  - Whom do you consider as an ideal leader?

- Traits and Models of Leadership
  - Are leaders born or made?
  - Key characteristics of an effective leader
  - Leadership styles
  - Perspectives of different leaders
- Basic Leadership Skills
  - Motivation
  - Team work
  - Negotiation
  - Networking

**Unit II**

- Design procedures, principle and ethics of designers.  
Managerial Skills:

- Basic Managerial Skills
  - Planning for effective management
  - How to organise teams?
  - Recruiting and retaining talent
  - Delegation of tasks
  - Learn to coordinate
  - Conflict management
- Self Management Skills
  - Understanding self concept
  - Developing self-awareness
  - Self-examination
  - Self-regulation

**Unit III**

- Arbitration and its proceedings and awards. Introduction to principles of business management project programming and monitoring.

Entrepreneurial Skills:

- Basics of Entrepreneurship
  - Meaning of entrepreneurship
  - Classification and types of entrepreneurship
  - Traits and competencies of entrepreneur
- Creating Business Plan
  - Problem identification and idea generation
  - Idea validation
  - Pitch making

**Unit IV**

- PERT and CPM network and their analysis Human relation and personnel management.

**Innovative Leadership and Design Thinking :**

- Innovative Leadership
  - Concept of emotional and social intelligence
  - Synthesis of human and artificial intelligence
  - Why does culture matter for today's global leaders
- Design Thinking
  - What is design thinking?
  - Key elements of design thinking:
    - Discovery
    - Interpretation
    - Ideation- Experimentation - Evolution.
  - How to transform challenges into opportunities?
  - How to develop human-centric solutions for creating social good?

**Unit V**

- Brief Idea about accounting and book keeping, business correspondence, information storage and retrieval systems.

**Ethics and Integrity :**

- Learning through Biographies
  - What makes an individual great?
  - Understanding the persona of a leader for deriving holistic inspiration
  - Drawing insights for leadership
  - How leaders sail through difficult situations?
- Ethics and Conduct
  - Importance of ethics
  - Ethical decision making
  - Personal and professional moral codes of conduct
  - Creating a harmonious life

**Notes**

: Mid Term Exam shall be as of Unit I to III.

**Exercise / Teaching Methodology :**

Preparing a report of a study of a Designer's workspace.

1. Leadership Skills - Lectures (augmented with videos); role-plays for leadership models; team building games
2. Managerial Skills - Lectures (augmented with videos), case studies (AMUL, TESLA, Toyota, DMRC, Tata Group, Google, The Mumbai Dabbawala), SWOT analysis, Johari window
3. Entrepreneurial Skills - Lectures (augmented with videos), case studies and practicing business plans
4. Innovative Leadership and Design Thinking- Concept discussion through lecture and videos followed by role-plays and exercises for each set of intelligence, activities using 5 steps – discovery, interpretation, ideation, experimentation, and evolution

5. Ethics and Integrity- Experiential learning through stories (Ahilya Bai, Holkar, Abdul Kalam, Raja Harishchandra, Mahatma Gandhi, Abraham Lincoln), audio visual augmented role plays and storytelling (leaders from varied fields like academics, corporate, social, sports, art, etc.)

Assessment :

Paper based assessment based on Scenario-based, logical reasoning, comprehension, simulations presentations, including simulations, case studies and business plan.

**Reference Books :**

1. Professional Practice by Dr. Roshan H. Namavati
2. Brown, T. (2012). *Change by Design*. Harper Business
3. Kalam A. A. (2003). *Ignited Minds: Unleashing the Power within India*. Penguin Books India
4. Kelly T., Kelly D. (2014). *Creative Confidence: Unleashing the Creative Potential Within Us All*. William Collins
5. McCormack M. H. (1986). *What They Don't Teach You at Harvard Business School: Notes From A Street-Smart Executive*. RHUS
6. Sternberg R. J., Sternberg R. J., & Baltes P. B. (Eds.). (2004). *International Handbook of Intelligence*. Cambridge University Press.
7. E-Resources
8. India's Hidden Hot Beds of Invention Ted Talk by Anil Gupta - [https://www.ted.com/talks/anil\\_gupta\\_india\\_s\\_hidden\\_hotbeds\\_of\\_invention](https://www.ted.com/talks/anil_gupta_india_s_hidden_hotbeds_of_invention)
9. Knowledge@Wharton Interviews Former Indian President APJ Abdul Kalam – "A Leader Should Know How to Manage Failure" <https://www.youtube.com/watch?v=laGZaS4sdeU>
10. NPTEL Course on Leadership - <https://nptel.ac.in/courses/122105021/9>

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	The study of this subject is to acquaint the students, while giving basic information about various aspects of the profession, conduct and responsibilities and procedures of Architectural profession.	L1
CO2	To learn about architectural profession and its regulatory and statutory bodies.	L3
CO3	To help students to develop essential skills to influence and motivate others	L4
CO4	To inculcate emotional and social intelligence and integrative thinking for effective leadership.	L2
CO5	To nurture a creative and entrepreneurial mindset and to make students understand the personal values and apply ethical principles in professional and social Context.	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	Blooms Level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PSO 3
CO1	L1	L	M	H	M	M	M	L	H	H	H	L	M	H
CO2	L3	M	M	H	M	M	H	L	M	M	M	M	H	L
CO3	L4	M	M	H	M	M	M	L	H	H	L	L	M	H
CO4	L2	L	M	H	H	M	M	L	H	H	H	M	H	L
CO5	L6	M	M	H	H	M	H	L	M	M	M	L	M	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Lecture by use of boards/LCD projectors/OHP projectors	CO1, CO2, CO3, CO4, CO5
CD2	Tutorials/Assignments	CO1, CO2, CO3, CO4, CO5
CD3	Seminars / Presentations	CO1, CO2, CO3, CO4, CO5
CD4	Project Discussions	CO1, CO2, CO3, CO4, CO5
CD5	Self- learning advice using internets	CO1, CO2, CO3, CO4, CO5

**Semester** : **Seven**      **4<sup>th</sup>Year**  
**Subject Name** : **ANANDAM**  
**Subject Code** : **BD714**

**Course Objective :**

- To instil the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:****Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs****M. From the Anandam Platform**

- An online platform to manage and share service opportunities
- A list of suggested programs or volunteering organizations.
- Training for faculty members on how to facilitate the Anandam program

**N. From the University**

- Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated, just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on an regular basis
- There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

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**B. Design, Semester-VIII, IV yr. (4 yrs. Degree Course)**
**SESSIONAL**

<b>S. No</b>	<b>Code</b>	<b>Subjects</b>	<b>Type</b>	<b>Internal Marks</b>	<b>End Term Ass.</b>	<b>Total Marks</b>	<b>L</b>	<b>S</b>	<b>Credits</b>
1	BD801	Degree Project	CORE	60	40	100	----	----	20
		<b>GRAND TOTAL</b>		<b>60</b>	<b>40</b>	<b>100</b>	----	----	<b>20</b>



**Semester : VIII 4<sup>th</sup> year**  
**Subject Name : DEGREE PROJECT**  
**Subject Code : BD801 DP**

**Course Objectives:**

- Industry project to be completed in semester 8 as an internship.
- Projects reports are to be submitted in a set format and mentors are assigned to each student for guidance through the project.
- The project is evaluated as the end-term examination in the form of a jury conducted by an industry and academic panel

**Course Outcomes: On completion of the course, student will be able to:**

CO	Statement	Blooms Level
CO1	Gain Hands on experience of related aspects of industry.	L6

Course Delivery methods	
CD1	Lecture by use of boards/LCD projectors/OHP projectors
CD2	Tutorials/Assignments
CD3	Seminars / Presentations
CD4	Project Discussions
CD5	Self- learning advice using internets

**Table: Mapping of Course Outcomes with Program Learning Outcomes**

Course Outcomes	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1	H	H	H	H	H	H	H	H	H	H

**H- High, M- Moderate, L- Low, '-' for No correlation**

**Mapping between CO and CD**

CD	Course Delivery methods	Course Outcomes
CD1	Tutorials/Assignments	CO1
CD2	Project Discussions	CO1
CD3	Self- learning advice using internets	CO1

**Semester : Eight 4<sup>th</sup>Year**

**Subject Name : ANANDAM**

**Subject Code : BD802**

**Course Objective :**

- To instil the joy of giving in young people, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- Students to be accepted to engage in individual and group acts of service and goodness.

**Action Plan:**

**Students will be expected to**

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register / Personal Diary
- Share this Register / Personal Diary day in the 30 minute Anandam time a lot dedicated by the University
- Undertake one group service project for 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month
- (there will be some suggested projects and organizations that students can work with. Students can also suggest their own projects which others can join)

**Inputs**

O. From the Anandam Platform

- An online platform to manage and share service opportunities
- A list of suggested programs or volunteering organizations.
- Training for faculty members on how to facilitate the Anandam program

P. From the University

- Faculty will review every student's Register / Personal Dairy to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated, just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on an regular basis
- There will be one Anandam coordinator to monitor the program in every University.

**Course Outcomes:**

Each student will finish the year with a portfolio of giving. This will include their Register / Personal Diaries and their reports on group service projects.

CO	Statement	BloomsLevel
CO1	Develop a great sense of understanding towards social issues.	L2
CO2	Able to engage in individual and group acts of service and goodness	L3

**Table: Mapping of Course Outcomes with Program Learning Outcomes and Program Specific Outcomes (PSOs)**

Course Outcomes	Blooms Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	LO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	L3	L	-	-	-	-	-	-	-	-	L	-	-	-
CO2	L3	-	L	-	-	-	-	-	-	L	M	-	-	L

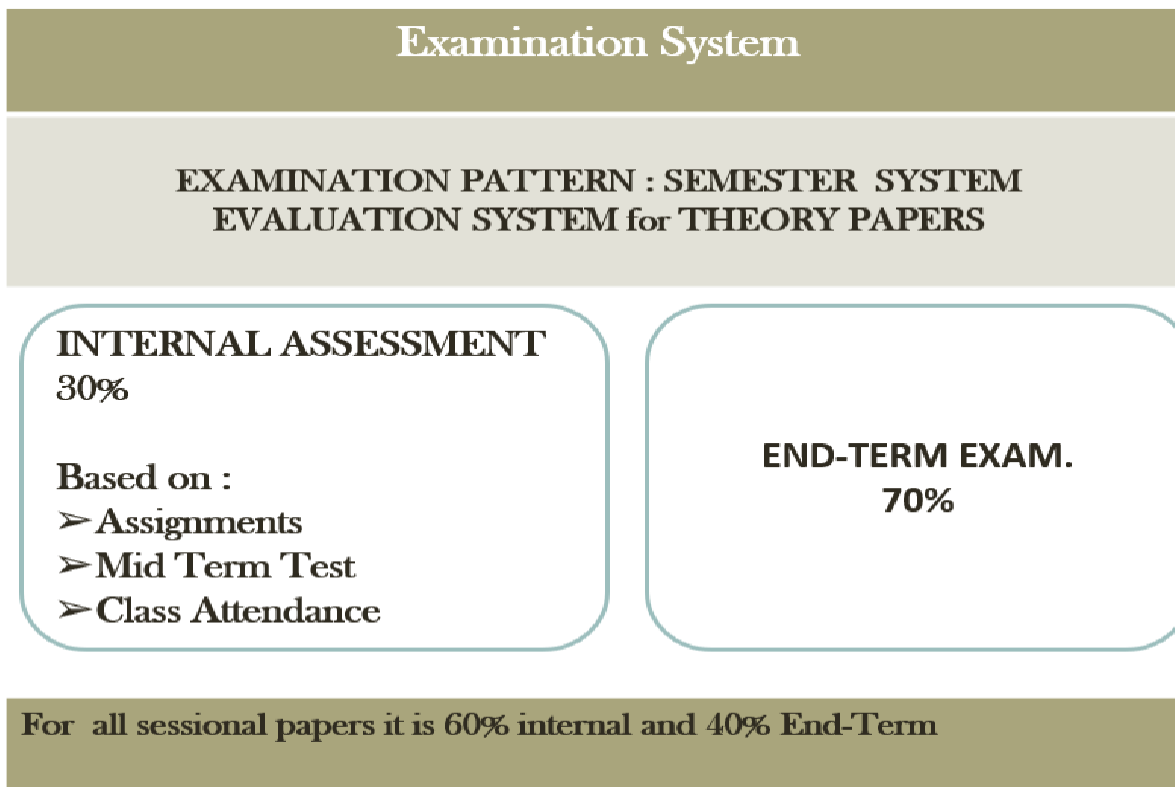
**11. TEACHING LEARNING METHODOLOGIES (TLM)**

The learning Outcomes -based Approach requires that the Teaching Learning Methodologies should be instrumental in attaining the following well defined learning outcomes relating to undergraduate programme in Bachelor of Design :

1. The outcome-based approach, especially in the context of B.DESIGN requires a significant shift from teacher-centric to learner-centric pedagogies and from one-way passive to two-way participatory approach.
2. Both teaching and learning should be based on critical thinking.
3. Every subject of B.DESIGN should lend itself to well-structured and sequenced acquisition of knowledge and skills.
4. Practical knowledge including an appreciation of the link between theory and practical should constitute an important aspect of the Teaching Learning Methodologies.
5. Teaching Learning Methodologies guided by such a framework, should include:
  - (a) Lectures supported by group tutorial work, practical and field-based learning.
  - (b) The use of prescribed text-books E-learning resources and other indispensable study materials.
  - (c) Relevant, useful and applicable project work in which some of them may be team-based.
  - (d) Activities be designed to develop generic/transferable and subject-specific skills.
  - (e) Internship of UI/UX Design related fields.
  - (f) Regular and frequent visits to field sites and design industries.
  - (g) Availability of primary research facilities.

<b>S. No.</b>	<b>Content</b>
1	Lectures & Presentations
2	Tutorials
3	Case Studies
4	Art & Graphic Works
5	Group Discussion Sessions/Panel Discussion
6	Company Visit related to UI/UX Design
7	E-Learning Tools (Photoshop, Illustrator, In design, Figma, XD Sketch)
8	Model/Sculpture Making/Installations
9	Live Projects (Thesis/Dissertation)

12. ASSESSMENT AND OUTCOME MEASUREMENT METHODS (AOMM)



Marks Evaluation System/Grade Distribution:-

Marks	Grade	Marks	Grade
90.1-100 %	O [Outstanding]	55.1-60 %	B [Above Average]
80.1-90 %	A+ [Excellent]	50.1-55 %	C+ [Average]
70.1-80 %	A [Very Good]	45.1-50 %	C [Pass]
60.1-70 %	B+ [Good]	Below 45 %	F [Fail]

**Criteria For Passing:**

- To pass in each subject, a candidate is required to obtain minimum 40% marks in Internal Evaluation & End-Term examinations or total 50% aggregate in each Semester.

**Due/Reappear Papers:**

- Papers in which student fails are treated as “duepapers”.
- Student can appear for Due of Odd Semester with Odd
- Sem Exams and Due paper of even Sem with Even Sem Exams.

**Rules For Promotion:**

- The Students are required to complete stage-I (First 3 academic years/6 semesters) max. within 5 years. The stage-II shall be of 2 academic years/4 semesters including 1 year of practical training, as per COA norms

**Quality Improvement Procedures:**

- Moderation of Question Papers
- Scrutiny – Comprehensive checking of Awards for errors and omissions
- Question Papers and Examiners Reports put up in BOS Meetings for Suggestions / Improvements

**Committees for Examination System:**

- Flying Squad
- Unfair Means Adjudication Committee
- Grievance Redressal Committee

**Question Paper Setting:**

Mid Term Exam : Set by Internal Examiner

End Term Exam: Q.P. set by External Paper Setters appointed from the Panel to be approved by the Dean

**13. TEACHERS' TRAINING**

1. The institutions shall encourage the faculty members to involve in professional practice.
2. The institutions shall encourage exchange of faculty members for academic programmes.
3. All faculty members must be encouraged to actively pursue practice / research and various other seminars.

**14. KEY WORDS**

LOCF, CBCS, Course Learning Outcomes, Employability, Graduate Attributes Communication Skills, Critical Thinking, and Descriptors, Architecture, , Planning, Objectives, Services, Structure, Design, Drawings, Arts, Graphics, Programs outcomes, Sustainable Development, UX Design, Dissertation, Thesis, Reports.