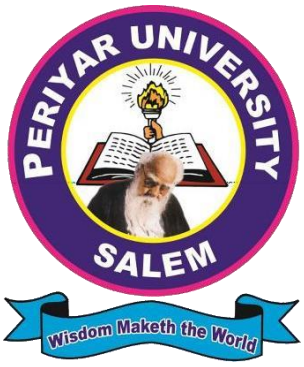
# PERIYAR UNIVERSITY

## SALEM – 636011




B.A.JMC (DIGITAL PRINT MEDIA)

CHOICE BASED CREDIT SYSTEM (CBCS)

**SYLLABUS FOR**

B.A.JMC (DIGITAL PRINT MEDIA)

**(SEMESTER PATTERN)**

**(FOR THE STUDENTS ADMITTED FROM THE ACADEMIC YEAR 2023-2024 ONWARDS)**

**B.A.JMC (Digital Print Media)**
**SEMESTER SYSTEM WITH CREDITS**

**Programme Educational Objectives (PEOs)**

1. To enhance the skills essential to address the requirements of digital media and printing industry
2. To get recruited in designing, digital print media and packaging industries
3. To acquire academic and pragmatic knowledge to become efficient contributors to digital print media across the globe
4. To develop creative and innovative ways to generate, and design effective messages across media platforms
5. To assimilate technical knowledge, to think independently and act as individual and in teams to fulfill the expectations of the industry
6. To provide training to be Entrepreneurs
7. To emerge as ethically and socially responsible media person and imbibe the values of honesty and responsibility

**Program Outcome (POs)**

1. Different types of printing techniques, quality maintenance, pre and post-press management are learned
2. Ability to design, develop and produce media content on a wide range of topic Provides job as a professional Graphics Designer.
3. Helps students to be self-employed in printing and media field.
4. Students are aware of basic drawing and visual concepts
5. Focus on obtaining management related jobs to our students.
6. Both software and hardware skills are made well-known to our students.
7. Different types of printing techniques from traditional to modern methods are thought to the students.
8. Knowledge regarding Quality maintenance, press management, machinery maintenance is made known to the students.

**Mapping of Programme Educational Objectives with Programme Outcomes**

A broad relation between the programme educational objective and the programme outcome is given in the following table.

| **Program Educational Objectives (PEO)** | **Program Objectives (PO)** | | | | | |
|---|---|---|---|---|---|---|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
| PEO1 | YES | YES | YES | YES | YES | YES |
| PEO2 | YES | YES | YES | YES | YES | YES |
| PEO3 | YES | YES | YES | YES | YES | YES |

| | | | | | | |
|---|---|---|---|---|---|---|
| PEO4 | YES | YES | YES | YES | YES | YES |
| PEO5 | YES | YES | YES | YES | YES | YES |
| PEO6 | YES | YES | YES | YES | YES | YES |
| PEO7 | YES | YES | YES | YES | YES | YES |
| PEO8 | -- | -- | -- | -- | YES | YES |
| YES=Match Between PEO and PO | | | | | | |

**PROGRAMME SPECIFIC OUTCOMES (PSOs) for B.A.JMC (Digital Print Media)**
By the completion of the B.A.JMC (Digital Print Media) programme, the students will have the following programme-specific outcomes.

1. Proficient in Digital Printing Techniques: Graduates will demonstrate a comprehensive understanding of digital printing technologies, processes, and equipment used in the print media industry. They will be able to operate and maintain digital printing machines effectively.
2. Graphic Design and Layout Skills: Students will acquire strong graphic design skills and be capable of creating visually appealing and engaging designs for digital print media, including brochures, posters, flyers, magazines, and other promotional materials.
3. Image Editing and Manipulation: Graduates will have the ability to edit and manipulate digital images using industry-standard software tools. They will be skilled in retouching, color correction, image enhancement, and other techniques to ensure high-quality output.
4. Print Production Management: Students will develop competencies in print production management, including understanding print specifications, selecting appropriate materials, estimating costs, and managing the production process efficiently.
5. Digital Publishing: Graduates will be proficient in digital publishing platforms and tools, enabling them to create interactive and engaging digital publications such as e-books, online magazines, and digital brochures.
6. Knowledge of Print Media Technologies: Students will gain a solid understanding of the latest trends, technologies, and innovations in the print media industry. They will stay updated with advancements in digital printing, finishing techniques, and emerging media formats.
7. Color Management: Graduates will possess expertise in color management principles and techniques, ensuring accurate color reproduction across various digital print media platforms and devices.
8. Marketing and Advertising Skills: Students will develop an understanding of marketing and advertising concepts specific to the digital print media field. They will

be able to create effective marketing campaigns and promotional materials targeting specific audiences.

9. Professional Communication: Graduates will possess strong communication skills and be able to effectively collaborate with clients, team members, and stakeholders to meet project requirements and deliver high-quality digital print media products.
10. Ethical and Legal Considerations: Students will be aware of ethical and legal considerations related to the digital print media industry, including copyright laws, intellectual property rights, and privacy issues.
11. Entrepreneurial Skills: Graduates will have the necessary entrepreneurial skills to start their own digital print media ventures, including business planning, client acquisition, and project management.
12. Industry Exposure and Internship: Students will gain practical industry exposure through internships and real-world projects, providing them with hands-on experience in the digital print media field and fostering professional development.

**JMC-Digital Print Media Curriculum Structure**

**SEMESTER I**

| Part | Course Component | Subject Name | Cdt. | Hrs | INT | EXT | Total |
|---|---|---|---|---|---|---|---|
| I. | Language | Tamil I / Language | 3 | 6 | 25 | 75 | 100 |
| II. | English | English I | 3 | 6 | 25 | 75 | 100 |
| III. | 23UJMCT01 | Introduction to Human Communication | 5 | 5 | 25 | 75 | 100 |
| | 23UJMCP02 | Drawing and Illustrations (Practical) | 5 | 5 | 40 | 60 | 100 |
| | 23UJMME01 Discipline Specific Elective DSE-I | Graphic Design and Typography (Practical) | 3 | 4 | 40 | 60 | 100 |
| IV. | 23UJMNE01 Skill Enhancement Foundation Course SEFC-1 | Concept in Visualisation | 2 | 2 | 25 | 75 | 100 |
| | 23UJMSE01 Skill Enhancement SEC – I (NME – I) | NME I: Digital Storytelling and Scriptwriting (Practical) | 2 | 2 | 25 | 75 | 100 |
| | | | 23 | 30 Hrs | | | 700 |
| **Total Credits - 23 / Hours (Per week) - 30** | | | | | | | |

**SEMESTER II**

| Part | Course Component | Subject Name | Cdt. | Hrs | INT | EXT | Total |
|---|---|---|---|---|---|---|---|
| I. | Language | Tamil II / Language | 3 | 6 | 25 | 75 | 100 |
| II. | English | English II | 3 | 4 | 25 | 75 | 100 |
| **IV** | **NMSDC** | **Overview of English Language Communication** | **2** | **2** | **-** | **-** | **-** |
| III. | 23UJMCT02 | Introduction to Printing Techniques | 5 | 5 | 25 | 75 | 100 |
| | 23UJMCPO2 | Photography and Image Editing | 5 | 5 | 25 | 75 | 100 |
| | 23UJMME02 Discipline Specific Elective DSE-II | Digital Graphic Design (Practical) | 3 | 4 | 40 | 60 | 100 |
| IV. | 23UJMNE02 Skill Enhancement Course –SEC-2 (Discipline Specific) | Social Media Management and Marketing | 2 | 2 | 25 | 75 | 100 |
| | 23UJMNE03 Skill Enhancement Course – SEC-3 (NME) | Language Skills for Employability: Essential English | 2 | 2 | 25 | 75 | 100 |
| | | | 25 | 30 Hrs | | | |
| **Total Credits – 23/ Hours (Per week) – 30** | | | | | | | |

**SEMESTER III**

| Part | Course Component | Subject Name | Cdt. | Hrs | INT | EXT | Total |
|---|---|---|---|---|---|---|---|
| I | Language | Tamil III / Language | 3 | 6 | 25 | 75 | 100 |
| II | English | English III | 3 | 4 | 25 | 75 | 100 |
| III | 23UJMCT03 | Industrial Printing Materials | 5 | 5 | 25 | 75 | 100 |
| | 23UJMCT04 | Indian constitution & laws for Printing technology | 4 | 4 | 25 | 75 | 100 |
| | 23UJMME03 Discipline Specific Elective DSE-III | Digital Image Editing (Practical) | 3 | 4 | 40 | 60 | 100 |
| | 23UJMNE04 Skill Enhancement Course – SEC-4 | Soft Skill-III Page Layout & Design (Practical) | 1 | 2 | 40 | 60 | 100 |
| | 23UJMNE05 Skill Enhancement Course SEC-5 | Printing Press Management | 1 | 2 | 25 | 75 | 100 |
| IV | EVS | Environmental Studies (Exam will be held in IV sem) | - | 1 | 25 | 75 | 100 |
| **IV** | | **Health and Wellness** | **1** | | | | |
| | NMSDC | Digital Skills for Employability-Digital Skills | 2 | 2 | - | - | - |
| | | | 23 | 30 Hrs | | | |
| **Total Credits - 22 /Hours (Per week) - 30** | | | | | | | |

**SEMESTER IV**

| Part | Course Component | Subject Name | Cdt. | Hrs | INT | EXT | Total |
|---|---|---|---|---|---|---|---|
| I | Language | Tamil IV/ Language | 3 | 6 | 25 | 75 | 100 |
| II | English | English IV | 3 | 6 | 25 | 75 | 100 |
| III | 23UJMCT05 | Design Thinking and Process | 5 | 5 | 25 | 75 | 100 |
| | 23UJMCT06 | Principles of User Experience Design | 5 | 5 | 25 | 75 | 100 |
| | 23UJMME04 Discipline Specific Elective DSE-IV | Binding & Finishing (Practical) | 3 | 3 | 40 | 60 | 100 |
| | 23UJMNE06 Skill Enhancement Course SEC-6 | UI/UX Design in Practice (Practical) | 2 | 2 | 40 | 60 | 100 |
| | **NMSDC** | **GRAPHIC DESIGN** | **2** | **2** | **40** | **60** | **100** |
| | EVS | Environmental Studies | 2 | 1 | 25 | 75 | 100 |
| | | | 25 | 30 Hrs | | | |
| **Total Credits - 25 /Hours (Per week) - 30** | | | | | | | |

**SEMESTER V**

| Part | Course Component | Subject Name | Cdt. | Hrs | INT | EXT | Total |
|---|---|---|---|---|---|---|---|
| III | 23UJMCT07 | Total Quality Maintenance for Printing | 4 | 5 | 25 | 75 | 100 |
| | 23UJMCT08 | Offset Printing Technology | 4 | 5 | 25 | 75 | 100 |
| | 23UJMCT09 | Print Finishing Operation | 4 | 5 | 25 | 75 | 100 |
| | 23UJMPR01 (Project with Viva) Practical | Creative / Customized Printed Products (Project with Viva voce) | 4 | 5 | 40 | 60 | 100 |
| | 23UJMME05 Discipline Specific Elective DSE-V | Offset Printing Techniques (Practical) | 3 | 4 | 40 | 60 | 100 |
| | 23UJMME06 Discipline Specific Elective DSE-VI | Packaging Techniques (Practical) | 3 | 4 | 40 | 60 | 100 |
| | 23UJMSI01 Summer Internship /Industrial Training | Internship | 2 | 2 | 40 | 60 | 100 |
| IV | Value Education | | 2 | | 25 | 75 | 100 |
| | | | 26 | 30 Hrs | | | |
| **Total Credits - 26 /Hours (Per week) - 30** | | | | | | | |

**SEMESTER VI**

| Part | Course Component | Subject Name | Cdt. | Hrs | INT | EXT | Total |
|---|---|---|---|---|---|---|---|
| III | 23UJMCT10 | Digital Printing | 4 | 6 | 25 | 75 | 100 |
| | 23UJMCT11 | Printing Machinery Maintenance | 4 | 6 | 25 | 75 | 100 |
| | 23UJMPR02 | Project | 4 | 6 | 40 | 60 | 100 |
| | 23UJMME07 Discipline Specific Elective DSE-VII | Digital Print Production (Practical) | 3 | 5 | 40 | 60 | 100 |
| | | | 3 | 3 | 25 | 75 | 100 |
| V | Extension Activity | Extension Activity (Fieldwork) | 1 | | 40 | 60 | 100 |
| | 23UJMSO01 Professional Competency Skill – PCS | Cyber Security Training for Media Professionals (Theory) | 2 | 4 | 25 | 75 | 100 |
| | | | 21 | 30 Hrs | | | |
| **Total Credits - 21 / Hours (Per week) – 30** | | | | | | | |
| Total Credits 143 | | | | | | | |

## Consolidated Semester wise and Component wise Credit distribution

| Parts | Sem I | Sem II | Sem III | Sem IV | Sem V | Sem VI | Total Credits |
|---|---|---|---|---|---|---|---|
| **Part I** | 3 | 3 | 3 | 3 | - | - | 12 |
| **Part II** | 3 | 3 | 3 | 3 | - | - | 12 |
| **Part III** | 13 | 13 | 16 | 17 | 24 | 18 | 101 |
| **Part IV** | 4 | 4 | - | 2 | 2 | - | 12 |
| **Part V** | - | - | - | - | - | 3 | 3 |
| **Total** | 23 | 23 | 22 | 25 | 26 | 21 | **140** |

***Part I. II, and Part III components will be separately taken into account for CGPA calculation and classification for the under graduate programme and the other components. IV, V have to be completed during the duration of the programme as per the norms, to be eligible for obtaining the UG degree.**

## SEMESTER I

## Core I: Introduction to Human Communication

| Course Objectives |
|---|
| To impart knowledge of the fundamentals of human communication. |
| To raise awareness of the evolutionary and biological foundations of human communication among students. |
| To be able to recognize various modes of communication and techniques for analysing them. |
| To understand the differences between various levels of communication and define them. |
| To introduce learners to the nature, origins, evolution, and spread of communication at different levels of society. |

### Unit 1: Human Communication Theories and Concepts

Fundamentals of Communication - Elements of Communication-Functions/Purpose of Communication - Barriers to Communication-Communication Apprehension, Competence, and Skills- Role of Perception, Emotion, and Cognition in Communication - Traditional Models of Human Communication - Generic Models of Communication- Principles of Good Communication

### Unit 2: Evolutionary and Biological Basis Communication

A Very Brief Overview of Biological Basis of Communication. Vocal Communication and Speech-Human Voice-Human Tongue - Brief Overview of Neurological Basis of Communication. Neurological Basis of Language - Signaling Theory of Communication. Gestures- Pointing as Communication - Evolution of Language and Culture

### Unit 3: Modes Of Communication

Key Concepts in Nonverbal Communication (NVC)- Proxemics- Digital NVC -Visual Communication-Visual Perception - Semiotics- Social Semiotics - Written Forms of Communication. Literacy and Morality. Writing and Reading as a Technology and Practice.

### Unit 4: Levels Of Communication

Intrapersonal Communication-Concept of Self and Related Themes- Overview of Interpersonal Communication-Theories of Interpersonal Communication - Group Communication-Theories of Group Communication

### Unit 5 : Persuasion

Key Concepts in Persuasion-Propaganda Attitude, Values -Theories of Persuasion-Attribution and Judgement, Social Judgement Theory- Elaboration Likelihood Model, Cognitive Dissonance/Balance Theory and Cialdini's 'Influence-Social Learning Model - Principles of

Good Communication and Non-violent Communication-Ethical Communication. Presentation Skills

| Course Outcomes |
|---|
| Analyze various aspects of communication and articulate good communication principles |
| Analyze and interpret signals, language, and signs as well as other aspects of human communication. |
| Demonstrate various modes of communication using message design principles. |
| Determine criteria for appropriate message design by distinguishing multi-level communication flows. |
| Analyze and interpret the behaviour of information, communication systems, and the spread of ideas in contemporary mediums. |

**Mapping**

| PSO/CO | CO 1 | CO 2 | CO 3 | CO 4 | CO 5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 2 | 3 | 1 | 1 |
| PSO 2 | 1 | 1 | 2 | 1 | 2 |
| PSO 3 | 1 | 2 | 3 | 1 | 2 |
| PSO 4 | 1 | 1 | 1 | 3 | 1 |
| PSO 5 | 1 | 1 | 2 | 2 | 2 |
| PSO 6 | 3 | 1 | 1 | 1 | 1 |
| PSO 7 | 2 | 2 | 2 | 1 | 1 |

**References**


1. Theories of Human Communication, Little john S. W., & Foss, K. A., 2010, Tenth Edition.
2. Communication in Society. Alberts, J. K., Martin, J. N., & Nakayama, T. K. Pearson. Waveland Press, 2018.
3. Human Communication: The Basic Course. DeVito, J. A. Pearson, 2017.
4. Evolutionary Communication: An Introduction. Lull, J. Routledge 2019).
5. Human Communication: Motivation, Knowledge, and Skills., Morreale, S. P., Spitzberg, B. H., & Barge, J. K. Wadsworth. 2007.

## Core II – Practical - Drawing and Illustrations

| Course Objectives |
|---|
| Familiarize students with Adobe Illustrator's interface, tools, and basic functionalities. |
| Teach fundamental drawing skills, including sketching, line art, and shading. |
| Introduce various illustration techniques, such as creating vector artwork, using gradients, and incorporating digital painting. |
| Educate students on compositional techniques and design principles for impactful illustrations. |
| Encourage students to apply their skills in creative projects, fostering creativity and problem-solving abilities. |

The drawing record should contain exercises completed by each student in every practical class during the first semester with proper dates and signature of the course teacher. It should contain a content page of exercises completed by individual students. The following exercises are compulsory. Each exercise should have at least 5 drawings. {Roughs also should be submitted along with the final drawings.}. Introduction to Materials – pencils, brushes and effects.

* Geometrical shapes
* Perspectives
* Overlapping objects
* Light and shade
* Drawings using different medium

| Course Outcome |
|---|
| Students will become proficient in using Adobe Illustrator's tools and features. |
| Graduates will showcase an understanding of various illustration techniques and styles. |
| Students will demonstrate a strong grasp of compositional techniques and design principles. |
| Participants will be adept at creating vector-based artwork. |
| At the end of the course, students will have built a diverse portfolio of original illustrations, showcasing their artistic growth and skills. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 2 | 2 | 3 | 2 |
| PSO 2 | 3 | 3 | 3 | 3 | 2 |
| PSO 3 | 3 | 3 | 3 | 3 | 3 |
| PSO 4 | 3 | 3 | 3 | 3 | 2 |
| PSO 5 | 2 | 2 | 3 | 3 | 3 |

**DSE I – Practical - GRAPHIC DESIGN AND TYPOGRAPHY**

| Course Objectives |
|---|
| Provide a foundational understanding of graphic design principles and its application in various industries. |
| Introduce the art and science of typography, covering font selection, pairing, hierarchy, and legibility. |
| Familiarize students with industry-standard graphic design software (e.g., Adobe Creative Suite). |
| Teach students how to generate and develop creative design concepts considering client requirements and target audience. |
| Guide students through executing design projects and effectively presenting their work to clients or stakeholders. |

**The record** should contain at least **THREE** exercises each with **written briefs, scribbles, and final artwork**. Cutting and pasting work for advertisements must be done with the design

elements (logos, illustrations, lettering, etc.) created by the students and (Hand Drawing—Lines, Sketches) **should contain handwork on basic design elements. There should be a minimum of THREE exercises for each topic outlined below**

**Record**

**GRAPHIC DESIGN**

- Logo design
- Letterhead
- Visiting Cards
- Brochures
- Print Advertisements for Newspapers and Magazines- Black & White, Col-or

**TYPOGRAPHY**

- Lines of different thickness
- Curves of different thickness
- Shapes of different forms
- Patterns—of different kinds
- Distortion—of different kinds
- Lettering(fonts) - Alphabets (Typographic study)

| Course Outcome |
|---|
| Demonstrate proficiency in graphic design software, creating visually compelling designs. |
| Possess a strong understanding of typography principles for effective text communication. |
| Develop creative problem-solving skills and innovative design solutions. |

| |
|---|
| Showcase conceptual design abilities aligned with client requirements. |
| Present their design projects professionally to clients or stakeholders. |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 3 | 2 | 2 | 3 | 2 |
| PSO 2 | 3 | 3 | 3 | 3 | 2 |
| PSO 3 | 3 | 3 | 3 | 3 | 3 |
| PSO 4 | 3 | 3 | 3 | 3 | 2 |
| PSO 5 | 2 | 2 | 3 | 3 | 3 |

## SEFC I – Concept in Visualisation

| Course Objectives |
| --- |
| Introduce the principles and techniques of visual communication and storytelling. |
| Develop students' skills in conveying creative concepts through visual means. |
| Explore various methods of visualization used in industries such as advertising, film, architecture, and design. |
| Foster the ability to translate abstract ideas into compelling visual designs and presentations. |
| Encourage collaboration and creative contribution to projects requiring strong visualization skills. |

**Unit I:**
The psychology of Visual perception
Human eye and vision
Spatial Vision
Colour spectrum and Psychology of colour

**Unit II:**
Colour
Colour Theory
Colour Wheel

**Unit III:**
Concepts of line
Concepts of form
Concepts of space

**Unit IV:**
Concepts of tone
Concepts of texture
Concepts of contents

**Unit V:**
Balance Rhythm,
Unity, Harmony
Perspective, Dominance

| Course Outcome |
|---|
| Deep understanding of visual storytelling, enabling effective communication of ideas through images and graphics. |
| Proficiency in using diverse tools and techniques to create impactful visual representations of concepts and narratives. |
| Skill in translating abstract concepts into compelling visual designs and presentations. |
| Creation of a diverse portfolio showcasing concept visualizations across different industries and media. |
| Ability to collaborate with professionals in various fields and contribute creatively to projects requiring strong visualization skills. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 1 | 3 | 2 | 3 |
| PSO 2 | 3 | 3 | 3 | 3 | 3 |
| PSO 3 | 3 | 3 | 3 | 3 | 3 |
| PSO 4 | 3 | 3 | 3 | 3 | 2 |
| PSO 5 | 2 | 3 | 2 | 3 | 3 |

**References**


1. A Grammar Book of ART & DESIGN by Raviraj – 2008 – Published by New Century Book House Pvt Ltd, Chennai
2. Creating and Understanding Drawings by Gene A Mittler, James Howze - Macmillan/McGraw-Hill, New York – 1989

## Digital Storytelling and Scriptwriting (NME-I) (Practical)

| Course Objectives |
| --- |
| Develop students' understanding of the principles and techniques of digital storytelling and scriptwriting. |
| Enhance students' ability to create engaging and compelling narratives suited for digital media platforms. |
| Familiarize students with the tools and technologies used in digital storytelling and scriptwriting processes. |
| Cultivate critical thinking and creative problem-solving skills for crafting impactful stories. |
| Encourage collaboration and teamwork in developing digital storytelling projects. |

**Unit 1: Introduction to Story**

Terminology of story design - Principles of story design - Story structure – Three-act structure - Freytag's pyramid-Hero journal structure – Dan Harmon's story circle

**Unit 2: Elements of Script**

Definition, Meaning of the script - Script preparation - Basics of scriptwriting – script and story ideas -Screenplay formatting

**Unit 3: Development of Script**

Process of script development - Strategies for script development - Structure of scripts - Storytelling techniques

**Unit 4: Types of Script**

Writing for fiction and non-fiction - Documentary script format - Commercial, PSA, News, and Radio scripts - Script for videogame - Standalone and Spec Script

**Unit 5: Analysis of Story and Script**

Elements of story analysis - Culture and practices in the story - McKee's Story Analysis Approach - Narrative Paradigm - Photovoice (Slideshow, Photographs with Sound)

| Course Outcome |
| --- |
| Proficiency in crafting captivating digital narratives and scripts, incorporating essential storytelling elements. |
| Creation of original and well-structured scripts tailored for various digital media platforms. |
| Familiarity with industry-standard tools and technologies used in digital storytelling and scriptwriting. |
| Demonstrated ability to critically analyze and improve storytelling techniques for maximum impact. |

| |
|---|
| Development of collaborative skills, enabling students to work effectively in creative teams for digital storytelling projects. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 1 | 3 | 2 | 3 |
| PSO 2 | 3 | 3 | 3 | 3 | 3 |
| PSO 3 | 3 | 3 | 3 | 3 | 3 |
| PSO 4 | 3 | 3 | 3 | 3 | 2 |
| PSO 5 | 2 | 3 | 2 | 3 | 3 |

**References**


1. Condy, Janet. 2015. Telling Stories Differently: Engaging 21st Century Students Through Digital Storytelling. AFRICAN SUN MeDIA.
2. Dunford, Mark, and Tricia Jenkins. 2017. Digital Storytelling: Form and Content. Springer.
3. Lambert, Joe. 2013. Digital Storytelling: Capturing Lives, Creating Community. Routledge.
4. Miller, Carolyn Handler. 2014. Digital Storytelling: A Creator's Guide to Interactive Entertainment. CRC Press.

## SEMESTER – II

## CORE PAPER – II: Introduction to Printing Techniques (Theory)

| Course Objectives |
|---|
| Students will be able to gather knowledge on the emergence of printing industry |
| Principles of printing process was made known to the students |
| Students will be able to demonstrate the image preparation techniques for different printing process |
| Different types of machines used in different printing process was made known to the students |
| To make students aware of the categorizing of different jobs as per their requirements |

**UNIT I:**
Evolution of Printing
Structure of Printing Industry
Applications of Printing Processes

**UNIT II:**
Basic Principles
Print recognition of Printing Processes
Advantages and Limitations of Printing Processes

**UNIT III:**
Classification of Offset Machines
Types of Offset Machines
Classification of Web offset Machines

**UNIT IV:**
Basic configuration of Flexography Machine
Types of Flexography Machine
Special application of flexography

**UNIT V:**
Classification and types of Gravure machine
Parts of screen printing press
Classification of screen printing machines

| Course Outcomes |
|---|
| History & evaluation of printing will be known |
| Students will have knowledge about the emergence of printing. |
| Students would be able to inculcate the knowledge of principles of printing process. |
| Students would be able to develop the knowledge on image formation techniques for different printing process. |
| Students will know about the different types of machines in different printing process. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 1 | 3 | 1 | 1 |
| PSO 2 | 3 | 3 | 3 | 3 | 2 |
| PSO 3 | 2 | 3 | 2 | 3 | 1 |
| PSO 4 | 2 | 2 | 3 | 2 | 1 |
| PSO 5 | 1 | 3 | 2 | 2 | 3 |

**References**


1. *What the printer should know paper – Lawrence A. Wilson – GATF Press*
2. *Hand Book of Print Media – Helmut Kipphan*
3. *Introduction to Printing and Finishing – Hugh M Speris*
4. *The print Production Manual – J.Peacock,C.Berril and M.Barnard*

## Core Practical II - Photography and Image Editing

Photography record should contain at least 15 black and white and 15 colour photographs. Each exercise should include all the necessary details (colour, exposure time, lens type etc.). Final practical examination will test students' knowledge on photography (either as a viva or written exam or practical work on fundamentals of photography). Following themes should be covered (minimum).

| Course Objectives |
|---|
| Develop fundamental photography skills, including composition, exposure, and lighting techniques. |
| Familiarize students with various types of photography, such as portrait, landscape, and product photography. |
| Introduce students to image editing software, enabling them to enhance and manipulate photographs creatively. |
| Teach students how to use post-processing techniques to refine images and achieve desired visual effects. |
| Cultivate an artistic and critical eye in students, encouraging them to express their creativity through photography and image editing. |

**Photography Exercises**

1. Landscape (scenic, people, birds/animals, monuments)
2. Portraits
3. Photo feature,
4. Photo language
5. Environmental exposure
6. Silhouette
7. Freezing movement
8. Panorama
9. Indoor photography
10. Industrial photography
11. Special effects
12. Journalism Photography
13. Product Photography
14. Wild Life Photography
15. Street Photography

**IMAGE EDITING – ADOBE PHOTOSHOP**

1. Photoshop tools and properties
2. Working with layers & transformation
3. Retouching & color corrections
4. Resizing and Resampling
5. Sharpening Techniques
6. Camera Raw Fundamentals Opening & Editing Raw Files
7. Noise Reduction & the Camera Raw Filter
8. Reducing Digital Camera
9. Noise Camera Raw Filter

| **Course Outcomes** |
|---|
| Proficient in capturing well-composed and properly exposed photographs using different camera settings. |
| Versatility in different photography genres, allowing students to apply their skills in diverse creative projects. |
| Competency in using image editing software to enhance, retouch, and manipulate photographs effectively. |
| Ability to apply various post-processing techniques to achieve desired visual effects and create unique artistic styles. |
| Development of a strong portfolio showcasing students' photography and image editing skills, ready for professional use or personal projects. |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 1 | 1 |
| PSO 2 | 1 | 3 | 2 | 3 | 2 |
| PSO 3 | 3 | 3 | 3 | 2 | 2 |
| PSO 4 | 1 | 3 | 3 | 1 | 2 |
| PSO 5 | 2 | 1 | 1 | 1 | 3 |

## DSE II - Digital Graphic Design (Practical)

| Course Objectives |
| --- |
| Develop proficiency in using graphic design software and tools to create digital artwork. |
| Understand design principles and apply them to create visually appealing and aesthetically pleasing designs. |
| Explore various graphic design techniques and styles to expand creative abilities. |
| Learn to effectively use typography, color, and imagery to convey messages and evoke emotions in designs. |
| Gain hands-on experience in executing real-world design projects, applying design thinking and problem-solving skills. |

**The practical will include**

1. DTP & editing and manipulation of image/pictures Using Canva, Adobe Illustrator, In Design (latest Versions)

**Exercises**

1. Design a 'logo' for an
    a. Advertising agency
    b. Commercial organization
    c. Non-profit organization
    d. Government agency
    e. Service industry
2. Design a 'visiting card' & 'letter head' for the same FIVE organizations
3. mentioned above using the logo created in the previous exercise.
4. Manipulate an image meaningfully.
5. Design a Brochure or Catalogs any product or concept.
6. Design a Menu card for a restaurant.
7. Design Greeting cards for any occasion of your choice.
8. Design a 'newsletter' for any one of the above-mentioned agencies.
9. Design the 'front cover' of an in-house journal published by any one of the above-mentioned agencies.
10. Design a poster for any public awareness concept.
11. Design a Dangler for any product.

| Course Outcomes |
| --- |
| Proficient in using graphic design software, creating visually engaging digital artwork. |

| |
|---|
| Apply design principles to produce visually appealing and aesthetically pleasing designs. |
| Showcase versatility in various graphic design techniques and styles. |
| Utilize typography, color, and imagery effectively to communicate messages and evoke emotions in designs. |
| Demonstrate the ability to execute real-world design projects with creative problem-solving skills and design thinking. |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 2 | 1 |
| PSO 2 | 2 | 3 | 3 | 2 | 2 |
| PSO 3 | 3 | 3 | 3 | 2 | 3 |
| PSO 4 | 1 | 1 | 3 | 3 | 2 |
| PSO 5 | 2 | 3 | 3 | 2 | 2 |

## SEC 2 - Social Media Management & Marketing

| Course Objectives |
|---|
| Equip students with a solid understanding of social media platforms, algorithms, and best practices for effective management and marketing. |
| Teach strategies to create engaging and relevant content tailored to target audiences across different social media channels. |
| Provide insights into social media analytics and data interpretation to measure campaign performance and optimize marketing strategies. |
| Familiarize students with social media advertising techniques and budget management to reach broader audiences and achieve marketing goals. |
| Cultivate ethical and responsible social media practices, including maintaining brand reputation and handling potential challenges or crises. |

**Unit I: MANAGEMENT STRUCTURE & ITS FUNCTIONS**

Management in Media organization – Structure – nature and process of management – levels of management– Skills, functions and management roles. Theories of management – classical, human relationships, modern approaches to management. Societal and organizational environment.

**Unit II: PRODUCTION MANAGEMENT**

Management in Media organization – Structure – nature and process of management – levels of management– Skills, functions and management roles. Theories of management – classical, human relationships, modern approaches to management. Societal and organizational environment.

**Unit II: MEDIA CONVERGENCE**

Entrepreneurship – Monopoly, oligopoly. Financial management – Media convergence, economics. Future of media business –Employment opportunities and status of media industry.

**Unit IV: ADVERTISING MANAGEMENT**

Advertising management - profit, sales and market share objectives, setting the budget, media selection and media scheduling.

**Unit V: MARKETING MANAGEMENT**

Marketing – management – creativity and innovation – internal communication and external communication. Understanding market and factors - audiences – research and analysis, ratings, trends in marketing and selling.

| Course Outcomes |
|---|
| Graduates will have a comprehensive understanding of social media platforms, algorithms, and best practices for successful management and marketing. |

| |
|---|
| Students will be adept at crafting compelling and audience-focused content for diverse social media platforms to drive engagement and brand awareness. |
| Participants will gain the ability to analyze social media metrics and use data-driven insights to enhance marketing strategies and achieve better results. |
| Graduates will be proficient in utilizing social media advertising tools, effectively managing budgets, and reaching targeted audiences to maximize campaign performance. |
| Upon completion, students will demonstrate responsible and ethical social media management, protecting brand reputation and addressing challenges professionally. |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 2 | 1 |
| PSO 2 | 3 | 3 | 3 | 2 | 2 |
| PSO 3 | 3 | 3 | 3 | 3 | 3 |
| PSO 4 | 3 | 3 | 2 | 3 | 2 |
| PSO 5 | 1 | 1 | 1 | 1 | 3 |

**References**


1. Block ***et al (***2001). Managing in the Media. Focal Press.
2. Alan B. Albarran, Sylvi (2006). A handbook of Media management and Economics – Lawrence Elbaun Associate Publishers.
3. Andrej vizjak and Max Riglstter (2003). Media management, Springer,
4. William jameswillis and diane B.willis (2006). New Directions in Media Management, Routledge.

**SEMESTER III**

**Core III - Theory – Industrial Printing Materials**

| **Course Objectives** |
|---|
| Understand the characteristics and properties of various industrial printing materials used in different printing processes. |
| Explore the applications and suitability of specific printing materials for different industrial contexts. |
| Gain knowledge about the production, sourcing, and quality control of printing materials in the industrial setting. |
| Learn about cost-effective and sustainable practices in the selection and use of printing materials. |
| Develop an awareness of safety protocols and handling procedures associated with industrial printing materials. |

**UNIT I:**

Composition of paper
Fibrous materials
Manufacture of paper
Bleaching process

**UNIT II:**

Operations in paper making machine
Paper finishing
Packing and Delivery
Board making

**UNIT III:**

Classifications of paper for printing
Choice of appropriate quality of paper for different printing processes
Paper and Board sizes
Runnability Properties
Printability Properties
Paper Problems

**UNIT IV:**

Raw materials used for manufacturing of printing inks
General characteristics and requirements of printing inks
Inks for different printing processes
Ink properties
Ink types

**UNIT V:**

Ink Drying and Ink Problems
Ink problems
Causes and remedies for Ink problems

| Course Outcomes |
|---|
| Students will have a comprehensive understanding of the properties and capabilities of industrial printing materials, enabling them to make informed material choices for specific printing applications. |
| Graduates will be able to identify and recommend appropriate printing materials for various industrial projects, considering factors like durability, cost-effectiveness, and intended use. |
| Participants will gain insights into the manufacturing processes and quality control standards of printing materials, ensuring they can assess and maintain material quality in industrial settings. |
| Students will be equipped with the knowledge and skills to promote sustainable practices in material selection and usage, reducing environmental impact in the printing industry. |
| By the end of the course, students will be familiar with safety guidelines and best practices for handling and storing industrial printing materials, ensuring a safe working environment. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 2 | 2 | 1 | 1 |
| PSO 2 | 3 | 2 | 2 | 1 | 1 |
| PSO 3 | 2 | 3 | 3 | 3 | 2 |
| PSO 4 | 2 | 1 | 2 | 1 | 3 |
| PSO 5 | 1 | 1 | 2 | 2 | 3 |

**Reference:**


1. Lawrence H.Wilson, What the printer should know about paper, GATF Press, Third Edition, 2000.
2. Lothar Gottsching & Heikki Pakarinen, Paper making Science and Technology, Book7, Fapet Publishing, 2000
3. Charles Finley, Printing Paper and Ink, Delmar Publisher, 1997.
4. R.H.Leach, The Printing Ink Manual, 5th Edn., Chapman & Hall, London, 2002

## Core Theory IV – Indian Constitution & Laws for Printing Technology - Theory

| Course Objectives |
| --- |
| To Define the importance of understanding our Indian Constitution |
| To Illustrate the legal aspects of the media and its values |
| To Develop future challenges of media regulation |
| To learn the media ethics |
| To Discover how media laws and ethics empower media practitioners to perform their duties |

**UNIT I:**
Introduction of the Constitution
Preamble of the constitution
Salient features of Constitution
Amendments in Constitution
Special provisions

**UNIT II**
Fundamental rights
Directive principles of state policies
Fundamental duties
Emergency powers
Media Response to Contemporary Challenges (Ref. Point: Newspaper, Magazines, Journals and TV Coverage)

**UNIT III**
Press in India
Media laws: Introduction
Significance of media laws
Freedom of expression in context of media
Role of media laws and their application

**UNIT IV**
Working Journalist Act
Copyright Act.
Contempt of court
IT Act
Right to Information Act

**UNIT V**
Main Provisions of IPC and CRPC
Official secret Act, Press Council Act
Press and Registration of Book Act
Prasar Bharti Act
Code of Ethics

| Course Outcomes |
|---|
| Student Shall have understanding of our Indian Constitution. |
| Student get aware to legal aspects of the media and its values. |
| Student have an overview of recent changes and future challenges of media regulation. |
| Shall have understanding of media ethics. |
| Student know how media laws and ethics empower media practitioners to perform their duties with commitment. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 1 | 1 |
| PSO 2 | 3 | 3 | 3 | 1 | 3 |
| PSO 3 | 3 | 3 | 3 | 1 | 3 |
| PSO 4 | 2 | 2 | 3 | 1 | 1 |
| PSO 5 | 1 | 2 | 2 | 1 | 3 |

**References**


1. Law of the Press in India, Durgadas Basu, Prentice Hall, London, 1980.
2. Law of Contempt of Court in India, B. S. Nayar, Atlantic New Delhi, 2004
3. Mass media Law and Regulation in India AMIC publication.
4. Bharat meinPraveshvidhi by Surendra Kumar &ManasPrabhakar.
5. Mass media law and regulation in India, VenkatAiyer, AMIC publication.

## DSE III (Practical) – Digital Image Editing

| Course Objectives |
| --- |
| Teach fundamental concepts and techniques of digital image editing software. |
| Familiarize students with essential tools for image enhancement, retouching, and manipulation. |
| Enable students to edit and optimize images for various digital platforms and print media. |
| Introduce advanced features like layers, masks, and filters for more sophisticated image editing. |
| Develop students' proficiency in creating visually compelling and professional-grade edited images. |

1. Photoshop Toolbar.
2. Transforming Images (Image Size, Canvas Size, Resolution, Rotate, Scale, Skew, Distort, Perspective, Flip Horizontal, Flip Vertical)
3. Color Correction using Adjustment Layers.
4. Selecting images using Marquee tool, Magic wand tool, Lasso Tool.
5. Selecting images using Path.
6. Re-drawing Picture.
7. Creating Layer Mask, Vector Mask & Alpha Channel.
8. Retouching Images using Clone Stamp tool, Healing Brush tool & Patch tool.
9. Working with Layer Styles (Drop Shadow, Inner Shadow, Outer Glow, Inner Glow, Bevel & Emboss)
10. Working with Layer Styles (Satin, Color Overlay, Gradient Overlay, Pattern Overlay, Stroke)
11. Designing a Greeting Card in Photoshop
12. Designing a Note Book Cover Page
13. Designing a Banner
14. Designing a Web page
15. Creating a Simple Animation in Photoshop

| Course Outcomes |
| --- |
| Acquire a strong foundation in digital image editing software, enabling efficient navigation and tool utilization. |
| Demonstrate the ability to enhance and retouch images to improve overall quality and visual appeal. |
| Produce optimized images suitable for web, social media, and print publication, adhering to industry standards. |

| |
|---|
| Apply advanced editing techniques, such as using layers and masks, to create complex and visually striking compositions. |
| Showcase a diverse portfolio of professionally edited images, displaying creativity and technical skills in image manipulation. |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 3 | 3 | 2 | 2 | 1 |
| PSO 2 | 2 | 3 | 2 | 2 | 3 |
| PSO 3 | 1 | 2 | 3 | 1 | 2 |
| PSO 4 | 3 | 1 | 2 | 3 | 1 |
| PSO 5 | 1 | 2 | 1 | 2 | 3 |

## SEC 4 - Page Layout & Design (Practical)

| Course Objectives |
|---|
| To develop in producing inner pages for books, magazines and newspaper |
| To enable students to create simple designs on different business needs |
| To make the students to design a logo for any concern, company or product |
| To enable students to learn about the method of calendar design |
| To develop idea among students on practice of posters, certificates and generating barcodes |

1. Creating a book work with Master Pages
2. Creating an News Paper Layout
3. Creating an Magazine Cover Page
4. Designing an Bill Book
5. Design an Envelope
6. Creating a Letter Head
7. Design a pamphlet
8. Logo Creation
9. Create a monogram
10. Creating Business Card
11. Create a web banner
12. Creating a monthly Calendar
13. Creating Barcodes
14. Poster Making
15. Create an A4 certificate

| Course Outcomes |
|---|
| To make student familiar in working with text & pages to produce inner pages for books, magazines and newspaper. |
| To familiarize student to create simple designs on different business needs. |
| Student will have the ability to create a logo for any concern, company or product. |
| To make students to design their own calendar with the layout and date. |
| Student should be familiar with creating their Posters, Certificate and generating barcodes. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 1 | 1 | 3 | 1 |
| PSO 2 | 3 | 2 | 2 | 2 | 3 |
| PSO 3 | 3 | 3 | 3 | 3 | 2 |
| PSO 4 | 3 | 2 | 3 | 1 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| PSO 5 | 1 | 1 | 1 | 1 | 3 |

**SEC 5 – Printing Press Management**

| Course Objectives |
|---|
| To enable students to understand the knowledge of costing |
| Explain procedure and thought of estimating to the students |
| To feed knowledge on accounting and its types |
| To explain the difference between market and sales are made known to the students |
| Understand various managing principles in printing |

## UNIT I: COSTING

Meaning and objects of costing, advantages of costing.
Methods of costing, classifications of costing in printing industry.
Variable direct costs, fixed direct costs and fixed indirect costs.
Capital cost of machinery equipment, utilization of machineries.
Interest on the capital cost of the machines.
Depreciation insurance on machinery.
Wages of Direct Labour.
Direct materials costing.
Costing of machine operations.
Costing of manual operations.

## UNIT II: ESTIMATING

Meaning, differentiating costing and estimating.
Qualification of an estimator.
Responsibilities of an estimator.
Reasons for variation in estimating.
Forms used in estimating.
Factors to be considered while estimating.
Procedures for preparing estimates and submitting quotations.
The factors, which decide the final cost of printed products.
Use of Computers in estimating.

## UNIT III: ACCOUNTING (THEORY ONLY)

Object of book keeping
Various systems of book keeping
Difference between Double entry and single entry book – keeping systems.
Advantages and disadvantages of double entry book keeping.
Meaning of important book – keeping terms.
Relationship between book – keeping and accounting
Source documents (supporting documents). Branches of accounting.
Classification of accounts – Journal, Ledger, Subsidiary book – Cash book and Petty cash book, trial balance.

## UNIT IV: MARKET AND SALES

Introduction to marketing and sales.

Marketing department organizational structure.
Duties and qualities of salesman.
Sales forecasting factors and their importance.
Advertising agencies and their roles.
Structure of advertising to manufacturers, customers and society.
Communication in management – definition/meaning, purpose.
General communication process, models of communication.
Communication skills – verbal and non-verbal.
Effective communication and its barriers.
Essentials of written communication.
4Cs of good communication.
Replies to enquiries, orders and complaints.

## UNIT V: PRINCIPLES OF MANAGEMENT

Printing press (organization) plant layout.
Principles of layout, plant location, building.
Ergonomics of management – lighting, glare/contrast, climate, safety and noise.
General plant safety procedures.
Safety in prepress departments.
Safety in presswork departments.
Safety in binding, finishing and converting departments.
Safety in materials handling.

| Course Outcomes |
|---|
| Basic knowledge of costing is made known to the students |
| Estimating procedures are thought to the students |
| Students inculcate knowledge on accounting and its types |
| Difference between market and sales and its importance are made known to the students |
| Managing principles are made known to the students |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 3 | 3 | 3 | 3 |
| PSO 2 | 3 | 3 | 3 | 3 | 3 |
| PSO 3 | 3 | 3 | 2 | 3 | 3 |
| PSO 4 | 3 | 1 | 3 | 2 | 3 |
| PSO 5 | 2 | 3 | 3 | 3 | 2 |

**REFERENCE:**


1. What the printer should know paper – Lawrence A. Wilson – GATF Press
2. Flexography primer – J.Page Cronnch
3. Gravure Primer – Cheryk L Kasunich
4. Hand Book of Print Media – Helmut Kipphan

**SEMESTER IV**

**Core V- Design Thinking and Process (Theory)**

| Course Objectives |
|---|
| Describe design thinking, its approaches and mindset |
| Explain fundamental Concepts, Resources and processes involved in design thinking |
| Comprehend stages of Design thinking for growth, |
| To explain strength and weakness of different design thinking tools and methods |
| Understand various applications of design thinking |

**Unit 1: Design Thinking Background**

Definition of Design Thinking. Business uses of Design Thinking - Variety within the Design Thinking Discipline - Design Thinking-Mindset-Problem Salving Approach - Fundamental Concepts: Empathy, Ethnography - Divergent Thinking, Convergent Thinking, Visual Thinking

**Unit 2: Design Mechanics and Resources**

Assumption Testing- Design Criteria, Curator, Design Brief. Designing for Growth Process- Process Stages of Designing for Growth - Overview of Prototyping-, Wireframing- Resources (People, Place, Materials, Organizational Fit) - Varies of Design Thinking Approach - Disruptive Solution. Double Diamond Process

Stage School Process- Human-Centered Design, Stanford School 5-Stage Approach, User-Centered Design - Affordances and Usability

**Unit 3: Design Thinking Tools**

What Wows? What Works? What Is? What If ? -Purposeful Use of Tools and Alignment with Process - Visualization-Aesthetics Principles for Designers

**Unit 4: Design Thinking Methods**

Journey Mapping. Archetype Mapping Matrix, Archetype Persona.

Value Chain Analysis, Customer Co-creation. Competitive Advantage - Concept Development, Mind Mapping- Brainstorming

**Unit 5: Design Thinking Practices**

Role of Project Management in Design Process- Aids. Minimal Marketable Feature (MMF), Minimal Viable Ecosystem (MVE), Minimal Viable Product (MVP), Napkin Pitch - Design Thinking Application and Execution-User Interface (UI) as Communication. Basic Principles of UI Design - Apps for Prototyping, Rapid Prototyping and Wireframing-Communicating Results Effectively.

| **Course Outcomes** |
|---|
| Adopt a problem-solving mindset to reframe design challenges |
| Enumerate and select appropriate design thinking approach for specific design problem |
| Use design thinking tools and methods to solve real-world problems |
| Apply design thinking principles to develop plan of action and wireframe for specific problem domain |
| To create prototypes for specific design problem using available design tools and apps |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 1 | 2 |
| PSO 2 | 3 | 3 | 3 | 2 | 3 |
| PSO 3 | 3 | 2 | 3 | 2 | 3 |
| PSO 4 | 1 | 1 | 3 | 2 | 2 |
| PSO 5 | 3 | 2 | 2 | 3 | 3 |

## Core VI - Theory -Principles of User Experience Design

| Course Objectives |
|---|
| To identify the users and learn various methods to collect user behavior data. |
| To develop a deep understanding of business-centered design. |
| To create efficient prototype to communicate and validate the design definition. |
| To apply UX process to web, mobile and small screen device. |

### UNIT I: INTRODUCTION TO DESIGN & CONCEPTUALIZING UX

Introduction to Design - Design Research, Importance of Visual Design, Understanding the importance of Usability, Accessibility and Interaction, Psychopathology of Everyday things -- Human Centered design, Fundamental principles of interaction, Psychology of everyday things – Introduction to UX – Understanding UX lifecycle & flow of events – its importance and future, Elements of UX, Fundamental of User Experience (UX), Customer Experience (CX), Customer Digital Touch Points, User Interface Design (UI), Interaction Design (IxD), Human computer interaction (HCI).The effects of good UXD design, Flow and Interaction, Guiding principles – Fundamentals of business centered

### UNIT II: USER RESEARCH TECHNIQUES

Need for data collection & prototyping – Different methods of data connection - User interview, Contextual enquiry, Heuristic Review, Survey, Empathy Map, Focus group, Research basics, User group definitions, Research techniques, Research analysis. Information Architecture Types of Navigation, Card sorting, Reverse card sorting, Sorting Tools& data analysis – Person creation – Preparing task list – Writing user story, Information Architecture & use cases.

### UNIT III : WIREFRAMING, PROTOTYPING & USER TESTING

Wireframe & Prototyping : Low fidelity wireframes, Hi fidelity wireframes, Wireframes tool (Balsamiq/Sketch), Prototype tool (Adobe XD, InvisionApp), Annotating essentials, Wireframing essentials, Toolkits, Responsive design, Wireframes vs Prototypes, Mocktypes – Fundamentals, Design & method of usability testing, usability metrics, Fundamentals of field testing – Remote usability testing – Preparing test flow, questionnaire, scenarios with tasks list, recruiting participants - Heuristic analysis

### UNIT IV : UX FOR MOBILE & SMALL SCREEN DEVICES

UX for mobile devices – Understanding the small screen environment – Prototyping for mobile devices – Usability testing & heuristic for mobile device – Experience definition for multiple platforms & form factor – Designing for the small screen.

### UNIT V : BASICS OF HTML5 & CSS3

Fundamentals of HTML – attribute types – list – Hyperlinks – tables and its tags – form attributeAdding Multimedia Contents using different media-related software and adding graphics – Introduction to CSS – Styles: Background, Text, Font, Link, Lists, Tables, Border – The box model: Styling with content, padding, borders and margin. CSS Positioning: static, relative, and absolute – using margins to separate and position.

| **Course Outcomes** |
|---|
| To understand the UX principles. |
| To differentiate between businesses-centered design and user-centered design. |
| To understand testing scenarios for usability. |
| To understand the prototyping for mobile and small screen devices. |
| To design and develop content for different screen resolutions |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 3 | 2 | 3 | 1 | 2 |
| PSO 2 | 3 | 3 | 1 | 1 | 3 |
| PSO 3 | 1 | 1 | 3 | 2 | 1 |
| PSO 4 | 3 | 1 | 2 | 3 | 2 |
| PSO 5 | 1 | 2 | 3 | 1 | 3 |

**REFERENCES**


1. Don Norman, The Design of Everyday Things, Basic Books, 2013.
2. Dan Saffer, Designing for interaction, New Riders publications, 2010.
3. Steve Krug, Don't Make Me Think! A Common Sense Approach to Web Usability, Second Edition, New Riders publications, 2006.
4. Ted Roden. Building the Real-time User Experience: Creating Immersive and Interactive Websites, Shroff/O'Reilly, 2010.
5. Christian Kraft. User Experience Innovation: User Centred Design that Works, Apress, 2012.
6. Nan Guo, Helmut Degen and Xiaowen Yuan, UX Best Practices: How to Achieve More Impact with User Experience, McGraw-Hill/Osborne Media.
7. Tom Tullis and Bill Albert. Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics, Morgan Kaufmann Publishers, 2008.
8. Trevor van Gorp and Edie Adams. Design for Emotion, Morgan Kaufmann, San Francisco

## DSE IV – Binding & Finishing (Practical)

| Course Objectives |
|---|
| To make students to learn the binding tools and equipment's |
| To enable students to know the different binding materials |
| To understand about the different types of binding methos |
| To make students know about the different indexing methods |
| Post press stages are also make know to the students |

1. Study of equipments, tools and materials in binding department.
2. Different styles of Endpaper.
3. Styles of Sewing.
4. Styles of Binding.
   4.1 Quarter bound cut flush and turned in with squares.
   4.2 Half bound conventional and modern.
   4.3 Full bound.
   4.4 Case making.
   4.5 Account book binding.
5. Indexing.
   5.1 One letter index.
   5.2 Two letter index.
   5.3 Vowel index.
6. Edge decoration and marbling.

| Course Outcomes |
|---|
| Different binding equipment's are made known to the students |
| Students tend to know the different binding materials used |
| Different types of binding methods are well known to the students |
| Different indexing methods are also made known to the students |
| Students gathered knowledge on edge decoration and marbling |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 3 | 3 | 2 | 1 |
| PSO 2 | 3 | 3 | 3 | 2 | 3 |
| PSO 3 | 3 | 3 | 3 | 3 | 1 |
| PSO 4 | 2 | 3 | 3 | 3 | 1 |
| PSO 5 | 2 | 2 | 1 | 2 | 3 |

**SEC 6 - UI/UX Design in Practice (Practical)**

| Course Objectives |
| --- |
| To develop skills required for analyzing the usability of a website |
| To understand concept generation and its related field of study. |
| To impart the skills required to create an information architecture document needed for a website. |
| To explore website and mobile application analysis. |
| To establish the requirements for User Experience Concept Designing using techniques such as use cases, personality development and task description. |

1. Create a Mood Board:
   - Open a new XD file.
   - Use the "Rectangle" tool to create a canvas.
   - Drag and drop images, colors, and typography from the internet or a local folder onto the canvas.
   - Arrange and resize them to create a mood board.
2. Redesign a Sign-Up Form:
   - Find an existing sign-up form design or create a simple one using XD's built-in tools.
   - Use the "Text" tool to label form fields (e.g., Name, Email, Password).
   - Adjust the colors and fonts to improve the visual appeal.
   - Play with the "Group" and "Align" options to organize the form elements neatly.
3. Design a Mobile App Onboarding:
   - Create a new artboard for each onboarding screen.
   - Design a welcome screen, explanation screen, and a call-to-action screen.
   - Use the "Artboard Linking" feature to create interactive transitions between screens.
4. Wireframe a Website Homepage:
   - Start with a new XD artboard for the homepage.
   - Use basic shapes like rectangles and lines to create a wireframe layout for content and navigation.
   - Add placeholder text to represent headings and paragraphs.
5. Create an Icon Set:
   - Use the "Ellipse" tool to create simple circles.
   - Design a set of icons by adding shapes and lines inside the circles.
   - Experiment with different colors and strokes to differentiate each icon.
6. Design a Mobile Navigation Menu:
   - Create a new XD artboard for the mobile navigation menu.
   - Use the "Text" tool to list menu items (e.g., Home, About, Contact).
   - Experiment with different icon styles or use the "Line" tool to create simple dividers.
7. Conduct a Usability Test:
   - Share your XD prototype with a friend or colleague.
   - Ask them to complete specific tasks and observe their interactions.

- Make note of any confusion or areas for improvement based on their feedback.

8. Improve a Form's Error Handling:
   - Create a simple form in XD with text fields and a submit button.
   - Use the "Auto-Animate" feature to create a transition between a correct submission and an error state.
   - Design an error message to appear if the user submits incomplete or incorrect information.
9. Design a Dashboard for Data Visualization:
   - Create a new XD artboard for the dashboard.
   - Use shapes and text to represent data (e.g., bar charts, pie charts).
   - Apply colors and labels to make the data visually appealing and understandable.
10. Prototype a Micro-interaction:
   - Choose a simple micro-interaction (e.g., button hover effect, toggle switch).
   - Create two artboards in XD, one for the initial state and one for the interaction state.
   - Use "Auto-Animate" to create a smooth transition between the two states.

| **Course Outcomes** |
| --- |
| Identify the users and learn the user experience lifecycle in its entirety. |
| Develop a deep understanding of business-centred design. |
| Create an efficient prototype to communicate and validate the design definition. |
| Apply UX process to mobile and small screen devices. |
| Develop a prototype. |
| Test the usability of the developed design. |
| SOFTWARE : Adobe XD, Figma, Adobe Dreamweaver |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 3 | 2 | 3 | 2 |
| PSO 2 | 2 | 3 | 3 | 3 | 3 |
| PSO 3 | 3 | 3 | 3 | 2 | 2 |
| PSO 4 | 2 | 2 | 1 | 3 | 2 |
| PSO 5 | 2 | 2 | 2 | 1 | 3 |

**SEMESTER V**

**Core VII : Total Quality Maintenance for Printing**

| Course Objectives |
|---|
| To describe the basic concept of quality and the quality control process |
| To review the importance of inspection and testing |
| To review the process control methods in printing industry |
| To compare and contrast different instruments used for quality control in printing industry |
| To understand the ISO implementation for an printing industry |

**Unit I: INTRODUCTION**

Definition of Quality terms
Quality control Process
Basic elements of Total Quality Management
Statistical Process Control Tools
Basic concepts of Kaizen, JIT, 5S, Six Sigma

**Unit II: Material Inspection and Testing**

Storage and Handling of Substrates and Chemicals
Testing procedures for Paper and board
Dampening solution testing methods
Ink testing methods
Introduction to light viewing booth

**Unit III: Process Control**

Quality control targets
Color Control patches
Wastage Management
Process control charts

**Unit IV: Calibration of Instruments and Profile**

Principle of Densitometer
Principle of Spectrophotometer
Analysis of Print Attributes
CTP calibration and Linearization process

**Unit V: Implementation of ISO for Print Quality**
Introduction to ISO 9001
Press Calibration to ISO-12647-2 standard
Implementation of ISO standards in printing organization
Customer Satisfaction for print industry

| Course Outcomes |
|---|
| To make students understand the basic concept of quality and the quality control process. |
| To inculcate knowledge on the importance of inspection and testing. |
| Students will know about the process control methods in printing industry. |
| Students will have an idea about the importance of instruments used for quality control in printing industries. |
| Information regarding the ISO implementation for an printing industry would be made clear to the students. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 2 | 3 | 2 | 1 |
| PSO 2 | 3 | 3 | 3 | 3 | 2 |
| PSO 3 | 3 | 3 | 3 | 2 | 2 |
| PSO 4 | 2 | 1 | 2 | 3 | 1 |
| PSO 5 | 3 | 2 | 2 | 3 | 3 |

## Core VIII – Offset Printing Technology

| Course Objectives |
|---|
| To make students understand the principles of lithography and its types. |
| To inculcate knowledge about the different printing units in offset machines. |
| Techniques on handling the feeder and delivery unit in offset printing will me make known to the students. |
| Students will get particular knowledge on web offset printing and its types. |
| Information regarding post press operation related to the offset printing will be learned by the students. |

**UNIT I - Introduction to Sheet fed Offset Presses**

Principles to Lithography

Structure and Type of presses – Inline Press, Stack Press, Blanket-to-Blanket Press, Common Impression Press

**UNIT II - Printing Unit in Offset Press**

Plate Cylinder, Blanket Cylinder, Impression Cylinder, Transfer Cylinder, Delivery Cylinder

Inking System – Construction, Setting Rollers- Form Roller to Oscillator, Form Roller to Plate, Ductor Roller Setting, Inking System Problems – Roller Streaks, Glazed Rollers, Fountain Blade Problems, Roller Problems

Dampening System – Construction, Composition of Dampening Solution, Dampening Solution pH, Conductivity, Dampening system Roller setting

**UNIT III - Sheet Control and Delivery in Offset Press**

Types of Automatic Feeder – Single sheet feeder, Stream Feeder

Feeder Head Components – Air blast Nozzle, Rear Pickup Suckers, Forwarding Pickup Suckers, Sheet Steadier's, Separator Brushes and fingers

Sheet Registering Devices – Front lay and Side lay

Delivery Section – Jogging the delivery pile, Deliver y Assist Devices – Suction Slow down Rollers, Blow downs, Wedges.

**UNIT IV - Webfed Offset Press – Infeed the Web Guiding Devices**

Roll Stands and Dancer Roll Principle – Types of Reel Stands

Automatic Splicers – Zero Speed Paster, Flying Paster

Web Control – Metering Roller, Box Tilt, Web break detectors, Bustle Wheel.

**UNIT V - Webfed Offset Press – Delivery Unit**

Types of Dryers and Chill Rollers

Mechanics of Folders – Former board Mechanics, Cut off Cylinder Mechanics, Jaw Folder Mechanics, Chopper Folder Mechanics

Types of Folders – Combination Folder, Ribbon Folder, Former Folder, Double Former Folders.

Auxiliary Equipment's – Stackers, Bundlers, Sheeters, Perforators, Imprinters, Sidelay Sensors.

| Course Outcomes |
|---|
| Students understand the concept of quality control process. |
| Importance of inspection and testing was made known to the students. |
| Will know the handling procedure for offset printing |
| Web offset and its types are made known |
| Post press details are made known to the students |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 1 | 1 | 2 | 1 | 1 |
| PSO 2 | 1 | 3 | 2 | 1 | 3 |
| PSO 3 | 2 | 3 | 3 | 2 | 3 |
| PSO 4 | 2 | 3 | 1 | 3 | 2 |
| PSO 5 | 1 | 2 | 1 | 2 | 1 |

**REFERENCE:**


1. A Manual for Lithographic Press Operations – A.S. Porter
2. Handbook of Print Media – Dr.Helmut Kipphan
3. Sheetfed Offset Press Operating – Lloyd P.Dejidas and Thomas M.Destree, GATF.
4. Offset Lithography – S.Jaganathan, K.T.Chary
5. Web Offset Press Operating – Daniel G. Wilson, GATF
6. Modern Lithography Printing – Ian Faux

## Core IX : Print Finishing Operation

| Course Objectives |
|---|
| Print finishing operations and the materials used will be known to the students |
| Trimming operations and different packaging techniques are fed to the students |
| Different types of binding procedures are made known to the students |
| Students inculcate knowledge on different packaging wrappers |
| Content regarding machines used in binding and packaging are thought to the students |

**Unit I:**

1.1 - Brief Introduction to Print Finishing.
1.2 - Lamination and Varnishing.
1.3 - Classification and Function of Packaging.
1.4 – Types of Cartons and Die making process.
1.5 – Materials Used in Binding and Packaging.

**Unit II:**

2.1 – Cutting, Trimming, Creasing, Gathering.
2.2 - Collating, Perforating, Numbering, Head band, Edge Decoration
2.3 - Factors influencing the design of a package
2.4 – Introduction to Food packaging, Aseptic Packaging.
2.5 – Flexible pouch forming.

**Unit III:**

3.1 - Stitching and types.
3.2 – Sewing and types.
3.3 - Loose Leaf Binding, Spiral Binding and Comb Binding.
3.4 - Perfect Binding, clamping station, milling station, gluing station, nipping station and delivery station.
3.5 - Case Binding – preparation of case and casing-in.

**Unit IV:**

4.1 - Closures - Screw cap, Lug cap, Roll on, Crown Cap, Child resistant and Tamper evident Closure.
4.2 - Dispensing devices - Snip-top, Dial disc, Dip tube, Brush applicator, Shaker sifter and push-pull type.
4.3 - Cushioning Materials, Types - Resilient, Non-resilient and Space filers.
4.4 - Types of Strapping and Sealing tapes.
4.5 - Shrink-Wrapping, Sleeve wrap and Envelope wrap.
4.6 - Skin Packaging, Blister Packaging, Strip Packaging, Stretch Wrapping.
4.7 - Introduction to RFID, QR Code and Barcode, applications in packaging.

**Unit V:**

5.1 - Guillotine machines, Trimmers, Folding machines.

5.2 - Wire-stitching machine. Thread stitching machine. Sewing machines. Gathering machines. Book back gluing machine. Rounding and backing machine. Back lining machine. Case making machine. Back forming machine. Pressing machine. Perfect binding machine. Laminating machine. Wrapping machine.

5.3 - Thermo Forming machine, Shrink wrap, skin pack, Blister pack, etc. Strip packaging, Shrink packaging, Blister Packaging, Skin packaging, and stretch wrapping. Plastic corrugated boxes, lined cartons. Barcode - types of Barcodes. Metal converting machine. Machines used in making caps and closures.

| **Course Outcomes** |
|---|
| Students know the Print finishing operations and the materials used |
| Trimming and packaging techniques are made known |
| Binding procedures are made known to the students |
| Create awareness on machines used in binding and packaging |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 1 | 1 |
| PSO 2 | 1 | 3 | 2 | 1 | 1 |
| PSO 3 | 1 | 3 | 3 | 1 | 1 |
| PSO 4 | 3 | 3 | 2 | 3 | 1 |
| PSO 5 | 1 | 1 | 2 | 1 | 3 |

**REFERENCE:**


1. Introduction to Printing and Finishing – Hugh M Speris
2. The print Production Manual – J.Peacock,C.Berril and M.Barnard Guarding of folding box gluers - British Printing Industries federation

## Project with Viva – Creative / Customized Printed Products

### DSE – V – Offset Printing Techniques (Practical)

| Course Objectives |
| --- |
| Provide a foundational understanding of offset printing processes, equipment, and its significance in the printing industry. |
| Teach students how to prepare and set up artwork files for offset printing, ensuring accuracy and proper alignment. |
| Educate students on color theory and management techniques for achieving consistent and high-quality color output in offset printing. |
| Familiarize students with the operation and maintenance of offset printing presses, ensuring safe and efficient use of equipment. |
| Equip students with the skills to identify and resolve common printing issues that may arise during offset printing jobs. |

1. Premake-ready operations of offset printing machines.
2. Adjustment of automatic feeders for single sheet feeding.
3. Preparation of offset plate for mounting on the cylinder.
4. Preparation and fitting of offset blanket.
5. Care and treatment of offset blanket in use.
6. Preparation of fountain solution and plate etches for use.
7. Preparation of dampening rollers.
8. Adjustment of inking rollers.
9. Adjustment of dampening rollers.
10. Ink fountain setting.
11. Make-ready and printing two-colour work of line and halftone.
12. Ink roller wash-up.
13. Damper cleaning.
14. Preparing the plate for storage.

15. Safety precautions while working on machines.

| Course Outcomes |
|---|
| Graduates will demonstrate a comprehensive understanding of offset printing techniques and their application in the industry. |
| Students will be skilled in preparing and setting up artwork files for offset printing, resulting in accurate and high-quality prints. |
| Participants will achieve consistent and precise color reproduction through effective color management techniques. |
| Graduates will be competent in operating and maintaining offset printing presses, ensuring smooth and safe printing processes. |
| Students will have the ability to identify and troubleshoot common printing issues, leading to efficient problem-solving during offset printing jobs. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 1 | 2 | 3 | 1 |
| PSO 2 | 1 | 3 | 1 | 2 | 2 |
| PSO 3 | 1 | 2 | 3 | 1 | 2 |
| PSO 4 | 3 | 2 | 1 | 3 | 2 |
| PSO 5 | 1 | 1 | 2 | 2 | 3 |

## DSE VI - Packaging Techniques (Practical)

| Course Objectives |
| --- |
| Teach students various packaging materials, structures, and design considerations. |
| Familiarize students with industry-standard software for packaging design. |
| Enable students to create functional and visually appealing packaging prototypes. |
| Introduce sustainable packaging practices and eco-friendly materials. |
| Develop skills to communicate brand identity and product information through packaging. |

1. Learning paperboard-based packaging.
2. Principle designs of cartons.
3. Glue and glue flap.
4. Reverse tuck-in carton.
5. Parallel tuck-in carton.
6. Lock bottom carton.
7. Auto lock bottom carton.
8. Shell and slide carton.
9. Gang carton.
10. Fibre-board container and rigid box.
11. Study about fibre-board material.
12. Corrugated box making.
13. Rigid box making.

| Course Outcomes |
| --- |
| Students will have a comprehensive understanding of packaging materials and design principles. |
| Graduates will be proficient in using packaging design software to create professional prototypes. |
| Participants will produce functional and aesthetically pleasing packaging samples. |
| Students will incorporate sustainable packaging practices into their designs. |

The ability to create packaging that effectively communicates brand identity and product details.

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 1 | 1 | 2 | 1 | 1 |
| PSO 2 | 2 | 2 | 2 | 3 | 1 |
| PSO 3 | 1 | 2 | 1 | 2 | 1 |
| PSO 4 | 3 | 3 | 2 | 3 | 2 |
| PSO 5 | 2 | 2 | 2 | 2 | 2 |

## Internship – Summer Internship / Industrial Training

**SEMESTER VI**
**Core X – Digital Printing**

| Course Objectives |
|---|
| To inculcate knowledge on the workflow in digital pre-press stage |
| Deliver knowledge to the students regarding the digital photography and the digital proofing methods |
| To deliver knowledge on digital image assembly using different data formats |
| Colour calibration techniques are made known to the students |
| Direct imaging from Computer to Plate techniques are thought to the students |

**Unit I: Digital Prepress – Introduction**

1.1 - Digital Description of the Printed page - Elements of Digital Page – Integration of Text, Images, Graphics, Layout and Prepress checklist.
1.2 - Dot Shape – Round, square, elliptical and composite shapes, Amplitude Modulation /Frequency Modulation Screening Difference between AM and FM screening and Benefits of FM screening.
1.3 - Input and Output Resolution - Scanning Frequency, Picture element and scanning frequency formula. Image - dependent Effects and Corrections – Spreads and Chokes, Trapping, Moire and interference of dot pattern.
1.4 - Under Colour Removal, Grey Component Replacement, and Un sharp Masking Techniques - Advantages of UCR, GCR & USM. Difference between UCR and GCR. Chromatic composition and achromatic composition.

**Unit II: Digital Photography & Digital Proofing**

2.1 - Image capturing with Digital camera – Special features of Digital Camera – Tone Value Quantization, Focal length of lens and Aspect Ratio and Link up to a Computer.
2.2 - Charge Coupled Device and Complementary Metal Oxide Semiconductor - Definition and difference between CCD and CMOS.
2.3 - Scanner designs and models, Flatbed Scanners - Diagram, functions of scanners and advantages of flatbed scanner.
2.4 - Digitizing and Re-digitizing - Various Re-digitizing Techniques Copy dot, De-screening and mixed mode. Digital Proofs and Press Proofs.

**Unit III: Digital Image Assembly and Data Formats**

3.1 - Page Assembly and Imposition - Digital assembly techniques of CTF and CTP. Imposition - Image register and alignment, Imposition plans - Sheet wise, Work and turn and Work and tumble.
3.2 - Full Sheet Output, Full sheet production in the workflow, Imposition through Software and Full sheet production workflow.
3.3 - Imposition Workflows - Types of Imposition programs, Imposition sheet, demands on Imposition programs and Imposition workflows and considerations for impositions.

3.4 - Raster Image Processor (RIP) - Workflow diagram – Interpreter, Renderer, Rasterizer and Bitmap. File Formats Postscript, TIFF, JPEG, GIF, LZW, EPS, PDF,PPF, 1 bit TIFF and JDF.
3.5 - Data Formats - Bitmap & Vector, Applications of storage media - Data distribution, Archiving and Backup or transport.

**Unit IV: Colour Management**
4.1 - Definition of Colour, Colour Management and Needs - Targets of Print Colour Management, CIE Chromaticity Diagram - CIE Lab Values – Spectrophotometry, Spectral Reflectance curves of colours. Colour perception and colorimetric description of colour.
4.2 - Colour measuring instruments, Colorimetry and Densitometry – Densitometer, Spectrophotometer diagrams and functions.
4.3 - Profiles for Monitor, Scanner and Printer – International Colour Consortium - ICC Profiles, generating ICC profiles for monitor, Scanner and Printer, Device-independent CIE LAB colour space, rendering intents – Perceptual, Relative, Absolute and saturation.
4.4 - Image Reproduction Process using Colour Management Implementing Colour Management, Diagram for Colour perception and the colorimetric description of colour and 3cs' of colour management.

**Unit V: Computer to Plate systems**
5.1 - Types of Computer to Plate Systems – Image register and Alignment, Types of CTPs, Advantage of CTP, Components of Computer to Plate system, Different Configuration of CTPs Flatbed, Internal Drum and External Drum.
5.2 - Workflows - PDF and JDF - Portable Document Format, Job Definition Format and their advantages. Preflighting techniques, the process and preflighting checks.
5.3 - Computer to Plate workflow, Types of Lasers – UV, Violet, Thermal and Computer to plate technology for flexography, gravure and screen printing processes. 5.4 - Printing plates for Digital Imaging - Types of Plates used in CTP - Silver halide plates, Photopolymer plates, Thermal plates, Inkjet plates - Automatic plate processor diagram and its functions.

| **Course Outcomes** |
| --- |
| Workflow in digital pre-press stages are thought to the students |
| Digital photography and the digital proofing methods are conveyed |
| Digital image assembly using different data formats |
| Students now know the Colour calibration techniques |
| Students have clear idea about the Direct imaging principles |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 3 | 3 | 3 | 3 | 3 |
| PSO 2 | 3 | 3 | 3 | 3 | 3 |
| PSO 3 | 3 | 3 | 3 | 3 | 3 |
| PSO 4 | 3 | 3 | 3 | 3 | 3 |
| PSO 5 | 3 | 3 | 3 | 2 | 3 |

**REFERENCE:**


1. Printing on a digital world - Darid Bergsland, Delmar Publish Inc., New York 1997.
2. Gutenberg goes Digital - Michael Limburg, Blueprint publication, London.
3. The Impact Printing for the commercial printer - techno Economic Forecast (1988 - 1993) - GATF.

## Core XI – Printing Machinery Maintenance

| Course Objectives |
|---|
| Knowledge on maintenance of machinery and its procedures was made known to the students |
| Different parts of machinery and its maintenance procedure is thought to the students |
| Difference between mechanical and electrical elements are made known |
| Lubricating and reconditioning procedures are thought to the students |
| Maintenance of mechanisms are thought to the students |

**Unit I: Maintenance Management**

1.1 - Maintenance – Definition, Objectives, Types of Equipment Maintenance – Planned maintenance and unplanned maintenance.

1.2 - Types of Planned maintenance - Preventive Maintenance, Predictive Maintenance and Scheduled maintenance Merits and demerits. Unplanned maintenance - Breakdown Maintenance or Emergency maintenance - Merits and Demerits. Contract maintenance - Definition - Merits and Demerits.

1.3 - Preventive Maintenance Functions - Planning, scheduling, Repair cycles, Dispatching and Controlling.

1.4 - Safety Precautions and House Keeping – safety precautions to be followed in press area and Five steps of housekeeping (5S method).

**Unit II: Power Transmission**

2.1 - Chain Drives - Introduction, Types of Chains – Roller Chain, Silent Chain, Ewart Chain and Bead Chain, Merits and Demerits of Chain Drives.

2.2 - Belt Drives - Introduction, Types of Belts – Flat belt, Rope belt, Tooth Belt, V belt and Timing Belt, Merits and Demerits of Belt drives.

2.3 - Gear Drives - Introduction, Types of Gears – Spur gear, Helical gear, Bevel gear, Worm gears and Herringbone gear, Merits and Demerits of gear drives.

2.4 - Maintenance and Lubrication of Drive Systems - Chain Drive, Belt Drive and Gear Drive.

2.5 - Direct drive technology – Introduction, Advantages and Application in the printing field.

**Unit III: Mechanical and Electrical Elements**

3.1 - Bearings, Types of Bearings - Sliding bearings and Antifriction bearings – Ball bearings, Needle bearings and Roller bearing. Merits and Demerits.

3.2 - Cams and Follower, Types of Cams and Followers – Disk Cam, Translation Cam, Groove Plate Cam, Cylindrical Cam, Eccentric Cam and Tow Wipe Cam. Advantages of cam and Follower.

3.3 - Springs, Types of springs – Helical Spring, Conical spring, Volute Spring and Torsion Springs and its application.

3.4 - Electrical Elements - Introduction to Contactors and its types, Introduction to Limit Switches and its application, Introduction to over Load Relay Switches and its types, Thermal and Magnetic, Introduction to Sensors and Detectors and its application, Introduction to Electrical Panels.

**Unit IV: Lubrication and Reconditioning**

4.1 - Lubrication – Introduction, Advantages, Types of Lubricants - Solid, Semisolid and Liquid. Lubrication Schedule, Chart and Paint Marks.

4.2 - Equipment's and Tools used in Erection and Reconditioning - Cranes, Hoists, Spanner, Wrenches, Screwdriver, Spirit level, Dial Indicator with gauge, Feeler gauge, Micrometer and Vernier Calipers, Application.

4.3 - Test Run – Types of test runs - Idle, Performance, Accuracy, Rigidity and Vibration test.

**Unit V: Maintenance of Mechanisms**

5.1 - Electrical Maintenance – Introduction to AC and DC motors, Maintenance Check list for motors, Common problems with Electricity.

5.2 - Pneumatic System Maintenance - Introduction to pneumatic system functioning, Compressor types Reciprocating and Rotary compressor, Application in Printing Field and Check List for pneumatic system maintenance.

5.3 - Hydraulic System Maintenance - Introduction to Hydraulic System, Application in Printing field and Check list for Hydraulic System maintenance.

5.4 - Mechatronics – Introduction and applications in Printing Field.

| **Course Outcomes** |
|---|
| Students inculcate knowledge on maintenance of machinery and its detail procedures |
| Students now know different parts of machinery and its maintenance procedure |
| Difference between mechanical and electrical elements are made known |
| Lubricating and reconditioning procedures are thought to the students |
| Maintenance of mechanisms are thought to the students |

**Mapping:**

| **PSOs/COs** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 2 | 2 |
| PSO 2 | 3 | 2 | 2 | 3 | 1 |
| PSO 3 | 1 | 2 | 3 | 1 | 2 |
| PSO 4 | 2 | 3 | 3 | 2 | 1 |
| PSO 5 | 2 | 3 | 3 | 2 | 3 |

**REFERENCE:**


1. H.P. Garg, Industrial maintenance, S. Chand & Company Ltd., Lewis and Tow, Readings in maintenance, Management Cohners Books. A.S.Porter, A manual for Lithographic press operation, Lithographic Training Services. Lithoprinting Ian Faux, Blueprint Publications.
2. Lithographers Manual, Graphic Arts Technology Foundations, U.S.A. Faires, V.M. – Design of machine elements, The Macmillan Co., London. Shirley, Mechanical Engineering Design, McCrawhill. Dobrovalsky et.al., ―Machine Elements‖. MIR Publications.

**Core – Project**

**DSE VII – Digital Print Production (Practical)**

| Course Objectives |
|---|
| Teach students the technical aspects of digital print production, including prepress preparation and file handling. |
| Familiarize students with different types of digital printing technologies and their applications. |
| Introduce color management techniques to ensure accurate and consistent print results. |
| Train students to troubleshoot common issues that may arise during the print production process. |
| Provide hands-on experience in producing high-quality digital prints for various projects. |

Every student should create a set of professional business stationery collateral set for which includes the following

1. Banner
2. Pamphlet
3. Letter Head
4. Envelop
5. Business Card
6. Pen
7. Diary
8. ID card
9. Wall clock
10. Phone case
11. Paper bag
12. Coffee Mug
13. CD cover & sticker
14. Dangler
15. Folder

| Course Outcomes |
|---|
| Students will gain proficiency in preparing files for digital printing, ensuring optimal print quality. |
| Graduates will understand the strengths and limitations of various digital printing technologies. |
| Participants will be skilled in color management, achieving consistent and accurate colors in their prints. |
| Students will develop problem-solving abilities to address issues that may arise during print production. |
| By the end of the course, students will be capable of producing professional digital prints for diverse print projects. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 1 | 2 | 3 | 2 | 2 |
| PSO 2 | 2 | 3 | 3 | 3 | 2 |
| PSO 3 | 2 | 3 | 3 | 2 | 2 |
| PSO 4 | 2 | 3 | 2 | 2 | 3 |
| PSO 5 | 1 | 2 | 3 | 3 | 3 |

## DSE VIII – Digital Marketing

| Course Objective |
| --- |
| To convey knowledge regarding basic internet usage |
| Components and functions of E-Marketing was made known to the students |
| Strategies of Digital Marketing are made known to the students |
| Types of E-Marketing are made known to the students |
| To deliver detail information regarding the branding of digital media. |

**Unit I:**
Internet: Concept & evaluation, Features of Internet: email, WWW, ftp, telnet, newsgroup & video conferencing; Intranet & Extranet, ISDN, TCP/IP, Limitation of internet, Hardware & software requirement of Internet.

**Unit II:**
E-Marketing: Business to Business (B2B), Business to customer (B2C) e-commerce; Online Sales force, On line Service and Support; EDI: Functions & components.

**Unit III:**
Digital Marketing Strategy, Building blocks of Digital Marketing Strategy,

**Unit IV:**
Types of E-Marketing: Search Advertisement, Online Advertisement, Affiliate Marketing, Video Marketing. Types of E-Marketing: Social Media Channel, E-Mail Marketing, Mobile Marketing.

**Unit V:**
Branding on Digital Media: Audience research and engagement in global environment, Building brand on digital media, Story Telling and user generated content on digital media network.

| Course Outcomes |
| --- |
| Students inculcate knowledge regarding basic internet usage |
| Students are now familiar with E-Marketing techniques |
| Students gathered knowledge on Digital Marketing |
| Students now know about the types of E-Marketing |
| Students will gather detail information regarding the branding of digital media. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | **1** | **2** | **3** | **3** | **2** |
| PSO 2 | **1** | **2** | **3** | **1** | **3** |
| PSO 3 | **1** | **2** | **2** | **1** | **3** |
| PSO 4 | **3** | **3** | **3** | **3** | **3** |
| PSO 5 | **2** | **1** | **2** | **2** | **3** |

**REFERENCE:**


1. Frontiers of E-Commerce Ravi Kalkota , TMH
2. O. Brien J. Management Information System, TMH
3. eMarketing: The essential guide to marketing in a digital world - Fifth Edition By Rob Stokes and the Minds of Quirk

## PCS – Cyber Security Training for Media Professionals

| Course Objective |
| --- |
| To understand the importance of cybersecurity in the media industry. |
| To identify the essential components of cybersecurity. |
| To analyze the cybersecurity threat landscape. |
| To evaluate different types of cybercrime. |
| To create a cybersecurity plan and crisis management strategy. |

**Unit 1: Introduction to Cybersecurity**
Understanding the Importance of Cybersecurity in the Media Industry - Essential Components of Cybersecurity - Overview of the Cybersecurity Threat Landscape - Types of Cybercrime - Remedial and Mitigation Measures

**Unit 2: Understanding Cybercrime**
Overview of Cybercrime - Common Types of Cybercrime - Understanding Data Privacy and Security -Overview of E-Commerce and Digital Payments Security - Cybercrime Reporting and Cyber Law

**Unit 3: Cybersecurity in the Digital Age**
Overview of Social Media and its Security - Cybersecurity of Digital Devices - Tools and Technology for Cybersecurity - Cybersecurity Plans and Crisis Management - Security Controls

**Unit 4: Risk-Based Assessment and Compliance**
Risk-Based Assessment and Audit - Overview of Cybersecurity Compliance - Best Practices for Cybersecurity - Do's and Don'ts for Cybersecurity - Platforms for Reporting and Combating Cybercrime

**Unit 5: Practical Hands-On Exercises**
Installing and Configuring Cybersecurity Tools - Implementing Security Controls - Conducting a Risk-Based Assessment - Responding to a Cybersecurity Incident - Developing a Cybersecurity Plan and Crisis Management Strategy

| Course Outcomes |
| --- |
| Describe the importance of cybersecurity in the media industry. |
| Identify the essential components of cybersecurity. |
| Analyze the cybersecurity threat landscape and assess potential risks. |
| Evaluate different types of cybercrime and their impact on the media industry. |
| Create a comprehensive cybersecurity plan and crisis management strategy. |

**Mapping:**

| PSOs/COs | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| PSO 1 | 2 | 3 | 3 | 2 | 2 |
| PSO 2 | 3 | 2 | 2 | 3 | 1 |
| PSO 3 | 1 | 2 | 3 | 1 | 2 |
| PSO 4 | 2 | 3 | 3 | 2 | 1 |
| PSO 5 | 2 | 3 | 3 | 2 | 3 |

**References**


1. Graham, B. (2016). Cybersecurity for Journalists: Protecting Yourself and Your Sources in the Digital Age. Focal Press.
2. Clarke, R. (2015). Cyber War: The Next Threat to National Security and What to Do About It. Ecco.
3. Healey, J., & Boulanger, P. (2018). The Cybersecurity Canon: Annotated Books Every Security Professional Should Read. Elsevier.
4. Boulanger, P. (2017). Cybersecurity: A Workplace Strategy. Elsevier.