DOCUMENT

Practical Architecture Support Courses (10-Hour Modules)

1. Architectural Sketching and Visualization

Duration: 10 hours
Objective: Develop freehand sketching and visualization skills for architectural communication.
Modules:

1. Perspective drawing and proportion
2. Line quality and shading techniques
3. Architectural detailing and textures
4. Concept sketching and ideation
5. Composition and presentation
   Practical Component: Create a series of architectural sketches for a small building concept.

---

2. Model Making and Physical Prototyping

Duration: 10 hours
Objective: Learn hands-on model-making techniques for architectural representation.
Modules:

1. Introduction to model-making tools and materials
2. Scale and proportion in models
3. Techniques for cutting, joining, and finishing
4. Site and context modeling
5. Presentation and detailing
   Practical Component: Build a scaled physical model of a small architectural project.

---

3. CAD for Architecture

Duration: 10 hours
Objective: Gain proficiency in computer-aided drafting for architectural documentation.
Modules:

1. Introduction to CAD interface and tools
2. Drawing plans, sections, and elevations
3. Layer management and annotation
4. Plotting and printing standards
5. File organization and collaboration
   Practical Component: Draft a complete set of 2D drawings for a small residential project.

---

4. 3D Modeling and Rendering

Duration: 10 hours
Objective: Learn digital modeling and visualization for architectural presentations.
Modules:

1. Introduction to 3D modeling software (SketchUp, Rhino, Revit)
2. Modeling architectural forms and details
3. Applying materials and textures
4. Lighting and rendering techniques
5. Presentation and post-processing
   Practical Component: Create a rendered 3D model of a conceptual building.

---

5. Sustainable Architecture and Green Building

Duration: 10 hours
Objective: Understand sustainable design principles and their practical applications.
Modules:

1. Fundamentals of sustainable architecture
2. Passive design strategies
3. Energy-efficient materials and systems
4. Water and waste management
5. Green certification standards (LEED, GRIHA)
   Practical Component: Develop a sustainable design proposal for a small building.

---

6. Architectural Design Thinking

Duration: 10 hours
Objective: Apply design thinking methods to architectural problem-solving.
Modules:

1. Understanding user needs and context
2. Ideation and concept generation
3. Prototyping and iteration
4. Feedback and refinement
5. Presentation of design outcomes
   Practical Component: Conduct a design sprint for a small urban or interior space.

---

7. Building Materials and Construction Techniques

Duration: 10 hours
Objective: Explore materials and construction methods used in modern architecture.
Modules:

1. Overview of building materials (concrete, steel, wood, glass)
2. Structural systems and joints
3. Finishes and detailing
4. Sustainable and local materials
5. Case studies of innovative construction
   Practical Component: Create a material board and construction detail model.

---

8. Site Analysis and Planning

Duration: 10 hours
Objective: Learn to analyze and plan architectural sites effectively.
Modules:

1. Site surveying and documentation
2. Climate and topography analysis
3. Circulation and zoning
4. Contextual design strategies
5. Site planning presentation
   Practical Component: Conduct a site analysis and develop a conceptual site plan.

---

9. Architectural Photography

Duration: 10 hours
Objective: Capture and present architectural spaces through photography.
Modules:

1. Basics of architectural photography
2. Composition and perspective
3. Lighting and exposure control
4. Editing and post-processing
5. Creating a photo portfolio
   Practical Component: Photograph a building and create a visual documentation set.

---

10. Interior Design Fundamentals

Duration: 10 hours
Objective: Understand the basics of interior design within architectural spaces.
Modules:

1. Space planning and ergonomics
2. Color, material, and lighting design
3. Furniture layout and detailing
4. Interior finishes and textures
5. Presentation and visualization
   Practical Component: Design and visualize an interior layout for a small space.

11. Architectural Presentation and Portfolio

Duration: 10 hours
Objective: Develop professional presentation and portfolio-building skills.
Modules:

1. Layout and composition principles
2. Visual storytelling and graphics
3. Combining drawings, renders, and models
4. Digital portfolio tools and formats
5. Review and critique
   Practical Component: Create a mini architectural portfolio showcasing one project.

---

12. Urban Design Basics

Duration: 10 hours
Objective: Introduce principles of urban design and spatial planning.
Modules:

1. Understanding urban form and structure
2. Public spaces and human scale
3. Street design and mobility
4. Urban sustainability and resilience
5. Case studies of urban interventions
   Practical Component: Develop a conceptual urban design proposal for a small site.

---

13. Parametric Design and Computational Tools

Duration: 10 hours
Objective: Explore computational design methods for architectural innovation.
Modules:

1. Introduction to parametric design concepts
2. Grasshopper and algorithmic modeling
3. Form generation and optimization
4. Data-driven design applications
5. Visualization and fabrication
   Practical Component: Create a parametric model demonstrating adaptive geometry.

---

14. Lighting Design for Architecture

Duration: 10 hours
Objective: Learn to design effective lighting for architectural spaces.
Modules:

1. Fundamentals of natural and artificial lighting
2. Lighting types and fixtures
3. Daylighting analysis and simulation
4. Lighting design for interiors and exteriors
5. Presentation and documentation
   Practical Component: Develop a lighting plan and visualization for a selected space.

---

15. Architectural Detailing and Documentation

Duration: 10 hours
Objective: Understand the importance of detailing in architectural execution.
Modules:

1. Construction detailing principles
2. Joinery and material junctions
3. Wall sections and façade details
4. Documentation standards and conventions
5. Quality control and site coordination
   Practical Component: Draft detailed drawings for a building component.

---

16. Digital Fabrication in Architecture

Duration: 10 hours
Objective: Learn digital fabrication techniques for architectural prototyping.
Modules:

1. Introduction to CNC, laser cutting, and 3D printing
2. File preparation and machine setup
3. Material selection and assembly
4. Fabrication safety and workflow
5. Prototype presentation
   Practical Component: Fabricate a scaled architectural component using digital tools.

---

17. Vernacular and Regional Architecture

Duration: 10 hours
Objective: Study traditional architectural practices and their modern relevance.
Modules:

1. Understanding vernacular principles
2. Climate-responsive design
3. Local materials and construction methods
4. Cultural and social context
5. Contemporary reinterpretations
   Practical Component: Document and analyze a vernacular building and propose a modern

adaptation.

---

18. Architectural Visualization with AR/VR

Duration: 10 hours
Objective: Use augmented and virtual reality tools for immersive architectural presentations.
Modules:

1. Introduction to AR/VR technologies
2. Model preparation and optimization
3. Setting up virtual environments
4. Interactive walkthroughs
5. Presentation and feedback
   Practical Component: Create an immersive VR walkthrough of a small architectural project.

---

19. Building Information Modeling (BIM) Basics

Duration: 10 hours
Objective: Learn the fundamentals of BIM for collaborative architectural design.
Modules:

1. Introduction to BIM concepts and tools
2. Modeling building components
3. Coordination and clash detection
4. Documentation and scheduling
5. BIM collaboration workflows
   Practical Component: Develop a BIM model for a small building project.

---

20. Architectural Project Management

Duration: 10 hours
Objective: Understand project management principles in architectural practice.
Modules:

1. Project planning and scheduling
2. Budgeting and resource allocation
3. Team coordination and communication
4. Risk management and quality assurance
5. Documentation and delivery
   Practical Component: Create a project plan for an architectural design project.

---

21. Landscape Design Fundamentals

Duration: 10 hours
Objective: Learn the basics of landscape design and site integration.
Modules:

1. Principles of landscape design
2. Plant selection and placement
3. Hardscape and softscape elements
4. Water features and sustainability
5. Landscape presentation techniques
   Practical Component: Design a small landscape layout for a residential site.

---

22. Architectural Conservation and Restoration

Duration: 10 hours
Objective: Understand methods for preserving and restoring heritage structures.
Modules:

1. Principles of conservation and restoration
2. Documentation and condition assessment
3. Material analysis and repair techniques
4. Adaptive reuse strategies
5. Case studies of restored buildings
   Practical Component: Prepare a conservation proposal for a heritage structure.

---

23. Architectural Ethics and Professional Practice

Duration: 10 hours
Objective: Learn ethical and professional standards in architectural practice.
Modules:

1. Roles and responsibilities of architects
2. Legal frameworks and building codes
3. Client relationships and contracts
4. Ethical decision-making in design
5. Professional conduct and case studies
   Practical Component: Develop a professional code of ethics for a design firm.

---

24. Creative Problem Solving in Architecture

Duration: 10 hours
Objective: Enhance creativity and innovation in architectural design processes.
Modules:

1. Design thinking for architecture
2. Ideation and conceptual development

3. Experimentation with forms and materials
4. Rapid prototyping and feedback
5. Refinement and presentation
   Practical Component: Conduct a creative design sprint for an innovative architectural concept.

DOCUMENT

Practical Interior Design Support Courses (10-Hour Modules)

1. Interior Design Sketching and Visualization

Duration: 10 hours
Objective: Develop freehand sketching and visualization skills for interior design concepts.
Modules:

1. Perspective drawing and proportion
2. Line quality and shading techniques
3. Furniture and fixture sketching
4. Concept visualization and composition
5. Presentation techniques
   Practical Component: Create a series of interior sketches for a residential space.

---

2. Space Planning and Layout Design

Duration: 10 hours
Objective: Learn to plan and organize interior spaces effectively.
Modules:

1. Principles of space planning
2. Functional zoning and circulation
3. Furniture layout and ergonomics
4. Scale and proportion in interiors
5. Design documentation and presentation
   Practical Component: Develop a space layout plan for a living or office area.

---

3. Color Theory and Application

Duration: 10 hours
Objective: Understand color psychology and its practical use in interior design.
Modules:

1. Basics of color theory
2. Color harmony and contrast
3. Lighting and color perception
4. Color trends and palettes
5. Application in residential and commercial spaces
   Practical Component: Create a color scheme board for a themed interior project.

---

4. Materials and Finishes in Interiors

Duration: 10 hours
Objective: Explore materials and finishes used in interior design.
Modules:

1. Classification of materials (wood, metal, glass, stone, fabrics)
2. Surface finishes and textures
3. Material selection criteria
4. Sustainable and innovative materials
5. Maintenance and durability considerations
   Practical Component: Develop a material and finish board for a selected interior space.

---

5. Lighting Design for Interiors

Duration: 10 hours
Objective: Learn to design effective lighting systems for interior environments.
Modules:

1. Fundamentals of lighting design
2. Types of lighting and fixtures
3. Lighting for mood and function
4. Energy-efficient lighting solutions
5. Lighting layout and documentation
   Practical Component: Create a lighting plan and visualization for a room.

---

6. Furniture Design and Detailing

Duration: 10 hours
Objective: Understand furniture design principles and detailing techniques.
Modules:

1. Furniture types and classifications
2. Ergonomics and dimensions
3. Materials and joinery details
4. Custom furniture design
5. Technical drawings and specifications
   Practical Component: Design and detail a custom furniture piece for a specific space.

---

7. Interior CAD Drafting

Duration: 10 hours
Objective: Learn computer-aided drafting for interior design documentation.
Modules:

1. Introduction to CAD tools and interface
2. Drawing plans, elevations, and sections
3. Layer management and annotation
4. Dimensioning and detailing
5. Printing and presentation standards
   Practical Component: Draft a complete set of interior drawings for a small project.

---

8. 3D Modeling and Rendering for Interiors

Duration: 10 hours
Objective: Develop digital modeling and rendering skills for interior visualization.
Modules:

1. Introduction to 3D modeling software (SketchUp, 3ds Max, Revit)
2. Modeling furniture and interior elements
3. Applying materials and textures
4. Lighting and camera setup
5. Rendering and post-processing
   Practical Component: Create a rendered 3D view of an interior space.

---

9. Interior Styling and Decoration

Duration: 10 hours
Objective: Learn styling techniques to enhance interior aesthetics.
Modules:

1. Principles of styling and composition
2. Accessory selection and placement
3. Textiles, art, and décor coordination
4. Seasonal and thematic styling
5. Photography and presentation
   Practical Component: Style and photograph a small interior setup.

---

10. Sustainable Interior Design

Duration: 10 hours
Objective: Apply sustainability principles in interior design projects.
Modules:

1. Sustainable materials and finishes
2. Energy-efficient lighting and HVAC
3. Waste reduction and recycling
4. Indoor air quality and wellness design
5. Case studies of green interiors
   Practical Component: Develop a sustainable design proposal for a residential space.

11. Interior Design Portfolio Development

Duration: 10 hours
Objective: Build a professional portfolio showcasing design skills and creativity.
Modules:

1. Portfolio structure and layout
2. Selecting and curating projects
3. Visual storytelling and presentation
4. Digital vs. physical portfolio formats
5. Review and feedback
   Practical Component: Create a mini interior design portfolio with sketches and renders.

---

12. Interior Design for Small Spaces

Duration: 10 hours
Objective: Learn to design functional and aesthetic small spaces.
Modules:

1. Space optimization strategies
2. Multifunctional furniture design
3. Lighting and color for small spaces
4. Storage and circulation solutions
5. Case studies of compact interiors
   Practical Component: Design a compact apartment layout with multifunctional elements.

---

13. Kitchen and Bathroom Design

Duration: 10 hours
Objective: Understand the design and detailing of functional kitchen and bathroom spaces.
Modules:

1. Ergonomics and layout planning
2. Plumbing and electrical considerations
3. Material and finish selection
4. Storage and lighting design
5. Technical drawings and specifications
   Practical Component: Design a modular kitchen or bathroom layout with details.

---

14. Interior Design Presentation Techniques

Duration: 10 hours
Objective: Learn effective methods to present interior design concepts.
Modules:

1. Visual communication principles
2. Mood boards and concept boards
3. Rendering and graphic presentation
4. Verbal and digital presentation skills
5. Client presentation simulation
   Practical Component: Prepare and present a concept board for a design project.

---

15. Interior Design Project Management

Duration: 10 hours
Objective: Understand project planning and execution in interior design.
Modules:

1. Project scheduling and budgeting
2. Vendor and contractor coordination
3. Site supervision and quality control
4. Documentation and reporting
5. Client communication and delivery
   Practical Component: Develop a project plan and timeline for an interior project.

---

16. Interior Design Trends and Forecasting

Duration: 10 hours
Objective: Explore current and emerging trends in interior design.
Modules:

1. Global design trends and influences
2. Color and material forecasting
3. Technology and innovation in interiors
4. Cultural and lifestyle impacts
5. Trend application in design projects
   Practical Component: Create a trend board for an upcoming interior design season.

---

17. Lighting Visualization and Simulation

Duration: 10 hours
Objective: Use digital tools to simulate and visualize lighting in interiors.
Modules:

1. Lighting simulation software introduction
2. Natural and artificial light analysis
3. Fixture placement and intensity control
4. Rendering lighting effects
5. Presentation and documentation
   Practical Component: Simulate lighting for a selected interior space using software.

18. Interior Design for Commercial Spaces

Duration: 10 hours
Objective: Learn design principles for retail, office, and hospitality interiors.
Modules:

1. Functional and aesthetic requirements
2. Branding and spatial identity
3. Circulation and zoning
4. Material and lighting strategies
5. Case studies of commercial interiors
   Practical Component: Design a concept layout for a retail or office space.

---

19. Interior Design Detailing and Documentation

Duration: 10 hours
Objective: Learn technical detailing and documentation for execution.
Modules:

1. Joinery and construction details
2. Ceiling, flooring, and wall details
3. Furniture and fixture documentation
4. Working drawing standards
5. Site coordination and revisions
   Practical Component: Prepare detailed working drawings for an interior element.

---

20. Interior Design Entrepreneurship

Duration: 10 hours
Objective: Understand business and entrepreneurial aspects of interior design.
Modules:

1. Starting an interior design practice
2. Client acquisition and contracts
3. Pricing and budgeting
4. Branding and marketing strategies
5. Legal and ethical considerations
   Practical Component: Develop a business plan for a small interior design studio.

---

21. Interior Design with BIM

Duration: 10 hours
Objective: Learn Building Information Modeling (BIM) for interior design coordination.
Modules:

1. Introduction to BIM concepts
2. Modeling interiors in Revit
3. Coordination with architecture and MEP
4. Quantity take-off and scheduling
5. Documentation and collaboration
   Practical Component: Create a BIM model for a small interior project.

---

22. Interior Design Photography

Duration: 10 hours
Objective: Capture and present interior spaces professionally.
Modules:

1. Basics of interior photography
2. Lighting and composition
3. Styling for photography
4. Editing and post-processing
5. Creating a photo portfolio
   Practical Component: Photograph and edit images of a designed interior space.

---

23. Interior Design Ethics and Professional Practice

Duration: 10 hours
Objective: Learn ethical and professional standards in interior design practice.
Modules:

1. Roles and responsibilities of interior designers
2. Legal frameworks and contracts
3. Client relationships and confidentiality
4. Ethical decision-making in design
5. Professional conduct and case studies
   Practical Component: Draft a professional code of ethics for an interior design firm.

---

24. Creative Problem Solving in Interior Design

Duration: 10 hours
Objective: Enhance creativity and innovation in interior design processes.
Modules:

1. Design thinking for interiors
2. Ideation and concept development
3. Experimentation with materials and forms
4. Rapid prototyping and feedback
5. Refinement and presentation
   Practical Component: Conduct a design sprint to develop an innovative interior concept.

DOCUMENT

DOCUMENT

Practical Architectural Conservation Support Courses (10-Hour Modules)

1. Fundamentals of Architectural Conservation

Duration: 10 hours
Objective: Understand the principles, philosophy, and scope of architectural conservation.
Modules:

1. Introduction to heritage and conservation
2. Types of heritage structures and values
3. Conservation principles and charters
4. Ethics and authenticity in conservation
5. Case studies of successful conservation projects
   Practical Component: Prepare a short report analyzing the conservation approach of a heritage site.

---

2. Documentation and Recording Techniques

Duration: 10 hours
Objective: Learn methods for documenting and recording heritage structures.
Modules:

1. Measured drawing techniques
2. Photographic and digital documentation
3. Condition mapping and damage assessment
4. Laser scanning and photogrammetry
5. Data organization and archiving
   Practical Component: Conduct a measured survey and prepare a documentation set for a small heritage structure.

---

3. Materials and Construction in Historic Buildings

Duration: 10 hours
Objective: Study traditional materials and construction techniques used in heritage structures.
Modules:

1. Overview of traditional materials (stone, brick, lime, timber)
2. Historic construction systems and detailing
3. Material deterioration and decay mechanisms

4. Compatibility of repair materials
5. Case studies of material conservation
   Practical Component: Analyze material samples and prepare a material condition report.

---

4. Condition Assessment and Structural Analysis

Duration: 10 hours
Objective: Learn to assess the structural stability and condition of heritage buildings.
Modules:

1. Visual inspection and structural mapping
2. Non-destructive testing (NDT) methods
3. Structural behavior of historic systems
4. Identifying causes of distress
5. Reporting and recommendations
   Practical Component: Conduct a condition assessment and prepare a structural observation report.

---

5. Conservation Planning and Management

Duration: 10 hours
Objective: Understand the process of planning and managing conservation projects.
Modules:

1. Conservation management frameworks
2. Heritage impact assessment
3. Stakeholder engagement and policy context
4. Phasing and prioritization of works
5. Monitoring and maintenance planning
   Practical Component: Develop a conservation management plan for a selected heritage site.

---

6. Traditional Building Techniques and Craft Skills

Duration: 10 hours
Objective: Gain hands-on understanding of traditional building crafts and techniques.
Modules:

1. Masonry and lime plastering
2. Timber joinery and carpentry
3. Roofing and flooring systems
4. Decorative finishes and detailing
5. Craftsmanship in conservation practice
   Practical Component: Participate in a workshop demonstrating traditional repair techniques.

---

7. Conservation of Architectural Finishes

Duration: 10 hours
Objective: Learn methods for conserving decorative and surface finishes.
Modules:

1. Types of finishes: plaster, paint, fresco, and stucco
2. Causes of deterioration
3. Cleaning and consolidation techniques
4. Retouching and reintegration
5. Documentation and ethical considerations
   Practical Component: Prepare a conservation proposal for a damaged decorative surface.

---

8. Heritage Mapping and GIS Applications

Duration: 10 hours
Objective: Use GIS and mapping tools for heritage documentation and analysis.
Modules:

1. Introduction to GIS for heritage management
2. Data collection and spatial analysis
3. Mapping heritage assets and buffer zones
4. Integration with conservation planning
5. Visualization and reporting
   Practical Component: Create a GIS-based heritage map for a historic precinct.

---

9. Adaptive Reuse and Rehabilitation

Duration: 10 hours
Objective: Explore strategies for adaptive reuse of heritage buildings.
Modules:

1. Principles of adaptive reuse
2. Functional and structural assessment
3. Design interventions and compatibility
4. Sustainability and energy efficiency
5. Case studies of adaptive reuse projects
   Practical Component: Develop a reuse proposal for a disused heritage building.

---

10. Conservation Project Documentation

Duration: 10 hours
Objective: Learn to prepare technical documentation for conservation projects.
Modules:

1. Documentation standards and formats
2. Drawings, specifications, and reports
3. Recording interventions and materials
4. Archival and digital documentation
5. Presentation and submission
   Practical Component: Prepare a documentation set for a conservation intervention.

---

11. Heritage Legislation and Policy

Duration: 10 hours
Objective: Understand legal frameworks and policies governing heritage conservation.
Modules:

1. National and international conservation laws
2. Heritage listing and protection mechanisms
3. Role of government and NGOs
4. Legal responsibilities of conservation professionals
5. Case studies of policy implementation
   Practical Component: Review and summarize heritage legislation applicable to a local site.

---

12. Conservation of Historic Urban Areas

Duration: 10 hours
Objective: Learn strategies for conserving historic towns and urban precincts.
Modules:

1. Urban heritage and cultural landscapes
2. Urban morphology and character analysis
3. Conservation zoning and guidelines
4. Infrastructure and adaptive planning
5. Case studies of urban conservation
   Practical Component: Prepare a conservation strategy for a historic urban area.

---

13. Digital Tools for Heritage Conservation

Duration: 10 hours
Objective: Use digital technologies for documentation and visualization of heritage sites.
Modules:

1. 3D scanning and modeling
2. Photogrammetry and drone mapping
3. Virtual and augmented reality applications
4. Digital archiving and databases
5. Integration with conservation workflows
   Practical Component: Create a 3D digital model of a heritage structure.

14. Conservation of Archaeological Sites

Duration: 10 hours
Objective: Understand conservation principles for archaeological remains.
Modules:

1. Archaeological site types and significance
2. Excavation and recording methods
3. Stabilization and protection techniques
4. Site presentation and interpretation
5. Case studies of archaeological conservation
   Practical Component: Develop a conservation plan for an excavated archaeological site.

---

15. Heritage Interpretation and Presentation

Duration: 10 hours
Objective: Learn methods for interpreting and presenting heritage to the public.
Modules:

1. Principles of heritage interpretation
2. Visitor experience and storytelling
3. Signage, exhibitions, and digital media
4. Accessibility and inclusivity
5. Community engagement strategies
   Practical Component: Design an interpretation plan for a heritage site.

---

16. Conservation of Historic Interiors

Duration: 10 hours
Objective: Study the conservation of interior elements in heritage buildings.
Modules:

1. Historic interior materials and finishes
2. Furniture and decorative elements
3. Lighting and environmental control
4. Restoration and adaptive reuse
5. Documentation and maintenance
   Practical Component: Prepare a conservation proposal for a historic interior space.

---

17. Preventive Conservation and Maintenance

Duration: 10 hours
Objective: Learn preventive measures to ensure long-term preservation of heritage structures.
Modules:

1. Preventive conservation principles
2. Monitoring and inspection techniques
3. Maintenance scheduling and budgeting
4. Environmental control and risk management
5. Documentation and reporting
   Practical Component: Develop a preventive maintenance plan for a heritage building.

---

18. Conservation of Historic Landscapes

Duration: 10 hours
Objective: Understand the conservation of cultural and historic landscapes.
Modules:

1. Landscape heritage and typologies
2. Documentation and analysis
3. Conservation and restoration strategies
4. Integration with urban and rural planning
5. Case studies of landscape conservation
   Practical Component: Prepare a conservation plan for a historic garden or landscape.

---

19. Structural Conservation Techniques

Duration: 10 hours
Objective: Learn structural repair and strengthening methods for heritage buildings.
Modules:

1. Structural behavior of historic materials
2. Crack and deformation analysis
3. Strengthening and retrofitting techniques
4. Compatibility and reversibility principles
5. Case studies of structural conservation
   Practical Component: Propose structural repair solutions for a damaged heritage structure.

---

20. Heritage Risk Management and Disaster Mitigation

Duration: 10 hours
Objective: Learn to protect heritage structures from natural and human-induced risks.
Modules:

1. Risk assessment and vulnerability analysis
2. Disaster preparedness and response
3. Fire safety and security planning
4. Post-disaster recovery and documentation
5. Case studies of risk management
   Practical Component: Develop a disaster risk management plan for a heritage site.

21. Conservation Economics and Funding

Duration: 10 hours
Objective: Understand financial planning and funding mechanisms for conservation projects.
Modules:

1. Cost estimation and budgeting
2. Funding sources and grant applications
3. Public-private partnerships
4. Economic valuation of heritage
5. Sustainable financial models
   Practical Component: Prepare a funding proposal for a conservation project.

---

22. Community Participation in Conservation

Duration: 10 hours
Objective: Learn methods to involve communities in heritage conservation.
Modules:

1. Role of communities in heritage management
2. Participatory planning and workshops
3. Awareness and education programs
4. Cultural tourism and local economy
5. Case studies of community-led conservation
   Practical Component: Design a community engagement plan for a heritage site.

---

23. Conservation Ethics and Professional Practice

Duration: 10 hours
Objective: Understand ethical and professional responsibilities in conservation practice.
Modules:

1. Conservation ethics and authenticity
2. Professional roles and responsibilities
3. Legal and contractual frameworks
4. Decision-making and stakeholder balance
5. Case studies of ethical dilemmas
   Practical Component: Draft a professional code of ethics for conservation practice.

---

24. Creative Problem Solving in Architectural Conservation

Duration: 10 hours
Objective: Enhance creativity and innovation in conservation design and management.
Modules:

1. Design thinking for conservation
2. Problem identification and ideation
3. Innovative materials and technologies
4. Adaptive solutions and experimentation
5. Presentation and feedback
   Practical Component: Conduct a design sprint to propose an innovative conservation solution.

DOCUMENT

Practical Landscape Design Support Courses (10-Hour Modules)

1. Landscape Design Fundamentals

Duration: 10 hours
Objective: Understand the core principles and elements of landscape design.
Modules:

1. Introduction to landscape design and its scope
2. Design principles: balance, rhythm, unity, and contrast
3. Site context and spatial organization
4. Hardscape and softscape integration
5. Concept development and presentation
   Practical Component: Create a conceptual layout for a small garden or courtyard.

---

2. Site Analysis and Planning

Duration: 10 hours
Objective: Learn to analyze and plan outdoor spaces based on environmental and functional factors.
Modules:

1. Site surveying and documentation
2. Climate, soil, and topography analysis
3. Circulation and zoning
4. Environmental and cultural context
5. Site planning and layout
   Practical Component: Conduct a site analysis and prepare a conceptual site plan.

---

3. Plant Selection and Design

Duration: 10 hours
Objective: Develop knowledge of plant species and their use in landscape design.
Modules:

1. Plant classification and identification
2. Planting design principles
3. Seasonal and climatic considerations
4. Aesthetic and functional plant use
5. Maintenance and sustainability
   Practical Component: Create a planting plan for a residential or public space.

---

4. Landscape Graphics and Visualization

Duration: 10 hours
Objective: Learn to communicate landscape ideas through drawings and visuals.
Modules:

1. Landscape sketching and rendering techniques
2. Plan, section, and elevation representation
3. Color and texture application
4. Digital visualization tools
5. Presentation board preparation
   Practical Component: Develop a rendered landscape plan and perspective view.

---

5. Hardscape Design and Detailing

Duration: 10 hours
Objective: Understand the design and detailing of built elements in landscapes.
Modules:

1. Hardscape materials and properties
2. Pathways, patios, and retaining walls
3. Water features and outdoor furniture
4. Construction detailing and documentation
5. Maintenance and durability
   Practical Component: Design and detail a hardscape element such as a pathway or seating area.

---

6. Landscape CAD Drafting

Duration: 10 hours
Objective: Learn computer-aided drafting for landscape design documentation.
Modules:

1. Introduction to CAD tools and interface
2. Drawing site plans and layouts
3. Layer management and annotation
4. Dimensioning and detailing
5. Plotting and presentation standards
   Practical Component: Draft a complete landscape plan using CAD software.

---

7. 3D Modeling and Rendering for Landscapes

Duration: 10 hours
Objective: Develop digital modeling and rendering skills for landscape visualization.
Modules:

1. Introduction to 3D modeling software (SketchUp, Lumion, Revit)
2. Modeling terrain and vegetation
3. Applying materials and lighting
4. Rendering and animation techniques
5. Presentation and post-processing
   Practical Component: Create a rendered 3D model of a landscape design.

---

8. Sustainable Landscape Design

Duration: 10 hours
Objective: Apply sustainability principles in landscape planning and design.
Modules:

1. Sustainable materials and practices
2. Water-efficient landscaping (xeriscaping)
3. Native and adaptive plant use
4. Energy-efficient outdoor design
5. Case studies of sustainable landscapes
   Practical Component: Develop a sustainable landscape proposal for a small site.

---

9. Irrigation and Drainage Systems

Duration: 10 hours
Objective: Learn the design and installation of irrigation and drainage systems.
Modules:

1. Principles of irrigation design
2. Sprinkler and drip systems
3. Drainage and stormwater management
4. Water conservation techniques
5. System maintenance and troubleshooting
   Practical Component: Design an irrigation and drainage layout for a landscape project.

---

10. Landscape Lighting Design

Duration: 10 hours
Objective: Understand lighting design for outdoor spaces.
Modules:

1. Fundamentals of landscape lighting
2. Fixture types and placement
3. Lighting for safety, function, and aesthetics
4. Energy-efficient lighting solutions
5. Documentation and visualization
   Practical Component: Create a lighting plan for a garden or public space.

11. Landscape Construction Techniques

Duration: 10 hours
Objective: Learn construction methods for landscape elements.
Modules:

1. Site preparation and grading
2. Paving and retaining structures
3. Decks, pergolas, and outdoor structures
4. Planting and soil preparation
5. Quality control and safety
   Practical Component: Prepare construction details for a selected landscape feature.

---

12. Urban Landscape Design

Duration: 10 hours
Objective: Explore design strategies for urban open spaces.
Modules:

1. Public parks and plazas
2. Streetscape and pedestrian design
3. Green infrastructure and urban ecology
4. Accessibility and inclusivity
5. Case studies of urban landscapes
   Practical Component: Design a conceptual plan for an urban plaza or park.

---

13. Landscape Ecology and Environmental Planning

Duration: 10 hours
Objective: Understand ecological principles in landscape design.
Modules:

1. Ecosystem components and processes
2. Habitat restoration and biodiversity
3. Environmental impact assessment
4. Landscape connectivity and corridors
5. Sustainable land-use planning
   Practical Component: Develop an ecological design plan for a natural site.

---

14. Landscape Project Management

Duration: 10 hours
Objective: Learn project planning and management for landscape projects.
Modules:

1. Project scheduling and budgeting
2. Resource allocation and procurement
3. Site supervision and quality control
4. Documentation and reporting
5. Client communication and delivery
   Practical Component: Prepare a project plan and timeline for a landscape project.

---

15. Landscape Design Portfolio Development

Duration: 10 hours
Objective: Build a professional portfolio showcasing landscape design skills.
Modules:

1. Portfolio structure and layout
2. Selecting and curating projects
3. Visual storytelling and presentation
4. Digital vs. physical portfolio formats
5. Review and feedback
   Practical Component: Create a mini landscape design portfolio with drawings and renders.

---

16. Landscape Restoration and Conservation

Duration: 10 hours
Objective: Learn restoration techniques for degraded landscapes.
Modules:

1. Principles of landscape restoration
2. Soil and vegetation rehabilitation
3. Erosion control and slope stabilization
4. Habitat conservation strategies
5. Case studies of restoration projects
   Practical Component: Develop a restoration plan for a degraded site.

---

17. Landscape Design for Residential Spaces

Duration: 10 hours
Objective: Design functional and aesthetic residential outdoor spaces.
Modules:

1. Client requirements and site analysis
2. Garden styles and themes
3. Outdoor living and recreation areas
4. Planting and lighting design
5. Presentation and documentation
   Practical Component: Design a residential garden layout with planting and lighting details.

18. Landscape Design for Commercial Spaces

Duration: 10 hours
Objective: Learn design principles for commercial and institutional landscapes.
Modules:

1. Functional and aesthetic requirements
2. Circulation and accessibility
3. Branding and identity in landscape design
4. Maintenance and durability
5. Case studies of commercial landscapes
   Practical Component: Design a conceptual layout for a commercial complex landscape.

---

19. Landscape Detailing and Documentation

Duration: 10 hours
Objective: Learn technical detailing and documentation for landscape execution.
Modules:

1. Construction detailing principles
2. Paving, edging, and planting details
3. Section and elevation drawings
4. Working drawing standards
5. Site coordination and revisions
   Practical Component: Prepare detailed working drawings for a landscape element.

---

20. Landscape Design with BIM

Duration: 10 hours
Objective: Use Building Information Modeling (BIM) for landscape coordination.
Modules:

1. Introduction to BIM for landscape design
2. Modeling terrain and vegetation
3. Integration with architectural and civil models
4. Quantity take-off and scheduling
5. Collaboration and documentation
   Practical Component: Create a BIM model for a small landscape project.

---

21. Landscape Photography and Visualization

Duration: 10 hours
Objective: Capture and present landscape projects professionally.
Modules:

1. Basics of landscape photography
2. Lighting and composition
3. Seasonal and time-based photography
4. Editing and post-processing
5. Creating a visual portfolio
   Practical Component: Photograph and edit images of a designed landscape.

---

22. Landscape Maintenance and Management

Duration: 10 hours
Objective: Learn maintenance planning and management for landscapes.
Modules:

1. Maintenance scheduling and budgeting
2. Plant care and pruning techniques
3. Irrigation and pest management
4. Seasonal maintenance practices
5. Documentation and reporting
   Practical Component: Develop a maintenance plan for a public or residential landscape.

---

23. Landscape Ethics and Professional Practice

Duration: 10 hours
Objective: Understand ethical and professional standards in landscape design.
Modules:

1. Roles and responsibilities of landscape designers
2. Legal frameworks and contracts
3. Environmental ethics and sustainability
4. Client relationships and confidentiality
5. Professional conduct and case studies
   Practical Component: Draft a professional code of ethics for a landscape design firm.

---

24. Creative Problem Solving in Landscape Design

Duration: 10 hours
Objective: Enhance creativity and innovation in landscape design processes.
Modules:

1. Design thinking for landscape projects
2. Ideation and concept development
3. Experimentation with forms and materials
4. Rapid prototyping and feedback
5. Refinement and presentation
   Practical Component: Conduct a design sprint to develop an innovative landscape concept.

DOCUMENT

DOCUMENT

Practical Urban Planning Support Courses (10-Hour Modules)

1. Fundamentals of Urban Planning

Duration: 10 hours
Objective: Understand the principles, scope, and evolution of urban planning.
Modules:

1. History and evolution of urban planning
2. Key concepts and terminologies
3. Planning systems and governance
4. Urban form and spatial organization
5. Contemporary challenges in urbanization
   Practical Component: Prepare a short report analyzing the planning structure of a selected city.

---

2. Land Use Planning and Zoning

Duration: 10 hours
Objective: Learn the fundamentals of land use allocation and zoning regulations.
Modules:

1. Land use classification and hierarchy
2. Zoning principles and regulations
3. Density and floor area ratio (FAR)
4. Mixed-use and transit-oriented development
5. Case studies of zoning implementation
   Practical Component: Develop a land use zoning map for a small urban area.

---

3. Urban Design Principles

Duration: 10 hours
Objective: Explore the relationship between urban design and planning.
Modules:

1. Elements of urban design
2. Public spaces and streetscapes
3. Human scale and walkability
4. Urban aesthetics and identity

5. Design guidelines and codes
   Practical Component: Create a conceptual urban design layout for a neighborhood.

---

4. Transportation and Mobility Planning

Duration: 10 hours
Objective: Understand transportation systems and their integration with urban form.
Modules:

1. Transportation modes and networks
2. Traffic flow and demand analysis
3. Public transport planning
4. Non-motorized and sustainable mobility
5. Smart mobility and future trends
   Practical Component: Prepare a mobility plan for a small urban corridor.

---

5. Housing and Community Planning

Duration: 10 hours
Objective: Learn to plan inclusive and sustainable housing developments.
Modules:

1. Housing typologies and standards
2. Affordable housing strategies
3. Community facilities and social infrastructure
4. Neighborhood design principles
5. Policy frameworks and case studies
   Practical Component: Design a housing layout plan for a low-income community.

---

6. Urban Infrastructure and Services

Duration: 10 hours
Objective: Study the planning and management of urban infrastructure systems.
Modules:

1. Water supply and sanitation systems
2. Solid waste and stormwater management
3. Energy and communication networks
4. Infrastructure integration and resilience
5. Smart infrastructure technologies
   Practical Component: Develop an infrastructure layout plan for a small urban area.

---

7. Environmental Planning and Management

Duration: 10 hours
Objective: Integrate environmental sustainability into urban planning.
Modules:

1. Environmental impact assessment (EIA)
2. Green infrastructure and open spaces
3. Urban ecology and biodiversity
4. Climate change adaptation and mitigation
5. Sustainable urban development frameworks
   Practical Component: Prepare an environmental management plan for an urban project.

---

8. Geographic Information Systems (GIS) for Urban Planning

Duration: 10 hours
Objective: Learn GIS tools for spatial analysis and planning applications.
Modules:

1. Introduction to GIS and spatial data
2. Data collection and mapping
3. Spatial analysis and modeling
4. Urban data visualization
5. Integration with planning workflows
   Practical Component: Create a GIS-based land use and infrastructure map.

---

9. Urban Governance and Policy

Duration: 10 hours
Objective: Understand governance structures and policy frameworks in urban planning.
Modules:

1. Urban governance models
2. Planning legislation and institutions
3. Policy formulation and implementation
4. Public participation and transparency
5. Case studies of governance reforms
   Practical Component: Analyze the governance framework of a selected urban authority.

---

10. Sustainable Urban Development

Duration: 10 hours
Objective: Apply sustainability principles in urban planning and design.
Modules:

1. Sustainable development goals (SDGs) and urban relevance
2. Compact city and smart growth concepts

3. Resource efficiency and green building
4. Urban resilience and adaptation
5. Case studies of sustainable cities
   Practical Component: Develop a sustainability strategy for a neighborhood plan.

---

11. Urban Economics and Finance

Duration: 10 hours
Objective: Learn economic principles and financial mechanisms in urban development.
Modules:

1. Urban land markets and valuation
2. Infrastructure financing and PPP models
3. Cost-benefit analysis in planning
4. Urban redevelopment economics
5. Fiscal tools and incentives
   Practical Component: Prepare a financial feasibility report for an urban project.

---

12. Urban Renewal and Regeneration

Duration: 10 hours
Objective: Explore strategies for revitalizing deteriorated urban areas.
Modules:

1. Urban decay and renewal concepts
2. Redevelopment and rehabilitation approaches
3. Social and economic impacts
4. Heritage and cultural integration
5. Case studies of urban regeneration
   Practical Component: Propose a renewal plan for a declining urban precinct.

---

13. Smart Cities and Digital Urbanism

Duration: 10 hours
Objective: Understand the role of technology in shaping modern cities.
Modules:

1. Smart city frameworks and components
2. Data-driven urban management
3. IoT and urban sensors
4. E-governance and citizen engagement
5. Case studies of smart city initiatives
   Practical Component: Develop a smart city concept plan for a medium-sized town.

---

14. Urban Resilience and Disaster Management

Duration: 10 hours
Objective: Learn to plan cities resilient to natural and human-made disasters.
Modules:

1. Risk assessment and vulnerability mapping
2. Disaster preparedness and mitigation
3. Climate resilience and adaptation
4. Emergency response planning
5. Post-disaster recovery strategies
   Practical Component: Prepare a resilience plan for a flood-prone urban area.

---

15. Public Space Design and Management

Duration: 10 hours
Objective: Learn to design and manage inclusive public spaces.
Modules:

1. Typologies of public spaces
2. Accessibility and inclusivity
3. Safety and comfort design principles
4. Maintenance and management models
5. Case studies of successful public spaces
   Practical Component: Design a public plaza or park layout for a community.

---

16. Urban Sociology and Community Engagement

Duration: 10 hours
Objective: Understand social dynamics and participatory planning methods.
Modules:

1. Urban social structures and behavior
2. Community profiling and surveys
3. Participatory planning tools
4. Social inclusion and equity
5. Case studies of community-led planning
   Practical Component: Conduct a community engagement exercise for a local project.

---

17. Regional Planning and Development

Duration: 10 hours
Objective: Learn planning strategies at the regional and metropolitan scale.
Modules:

1. Regional planning concepts and hierarchy
2. Resource distribution and spatial balance
3. Growth corridors and regional connectivity
4. Rural-urban linkages
5. Case studies of regional plans
   Practical Component: Prepare a conceptual regional development framework.

---

18. Urban Design Codes and Guidelines

Duration: 10 hours
Objective: Learn to develop and apply urban design regulations.
Modules:

1. Purpose and structure of design codes
2. Building height, setback, and density controls
3. Streetscape and façade guidelines
4. Public realm and open space standards
5. Implementation and monitoring
   Practical Component: Draft urban design guidelines for a mixed-use district.

---

19. Urban Data Analytics

Duration: 10 hours
Objective: Use data analytics for evidence-based urban planning.
Modules:

1. Data sources and collection methods
2. Quantitative and qualitative analysis
3. Visualization and dashboards
4. Predictive modeling and simulations
5. Decision-making using data insights
   Practical Component: Analyze urban data to identify trends and planning opportunities.

---

20. Heritage and Cultural Planning

Duration: 10 hours
Objective: Integrate cultural heritage into urban planning frameworks.
Modules:

1. Cultural landscapes and heritage assets
2. Conservation planning and adaptive reuse
3. Cultural tourism and identity
4. Policy and legal frameworks
5. Case studies of heritage-sensitive planning
   Practical Component: Develop a cultural heritage management plan for a historic district.

21. Urban Climate and Environmental Design

Duration: 10 hours
Objective: Study the relationship between urban form and microclimate.
Modules:

1. Urban heat island effect
2. Climate-responsive design strategies
3. Green roofs and vertical gardens
4. Air quality and ventilation planning
5. Case studies of climate-sensitive cities
   Practical Component: Propose climate-responsive design interventions for an urban block.

---

22. Urban Planning Law and Ethics

Duration: 10 hours
Objective: Understand legal and ethical frameworks in urban planning practice.
Modules:

1. Planning acts and regulations
2. Land acquisition and development control
3. Professional ethics and responsibilities
4. Public interest and conflict resolution
5. Case studies of legal planning issues
   Practical Component: Review and summarize planning laws applicable to a local project.

---

23. Urban Project Management

Duration: 10 hours
Objective: Learn project management principles for urban development projects.
Modules:

1. Project life cycle and planning
2. Scheduling and resource allocation
3. Cost estimation and budgeting
4. Monitoring and evaluation
5. Reporting and documentation
   Practical Component: Prepare a project management plan for an urban infrastructure project.

---

24. Creative Problem Solving in Urban Planning

Duration: 10 hours
Objective: Enhance creativity and innovation in urban planning processes.
Modules:

1. Design thinking for planners
2. Ideation and concept development
3. Scenario planning and simulation
4. Collaborative problem-solving
5. Presentation and feedback
   Practical Component: Conduct a design sprint to propose an innovative urban planning solution.

DOCUMENT

DOCUMENT

Practical Art Support Courses (10-Hour Modules)

1. Fundamentals of Drawing

Duration: 10 hours
Objective: Develop foundational drawing skills for artistic expression.
Modules:

1. Line, shape, and form basics
2. Perspective and proportion
3. Light, shadow, and value
4. Composition and balance
5. Sketching from observation
   Practical Component: Create a series of observational sketches demonstrating perspective and shading.

---

2. Color Theory and Application

Duration: 10 hours
Objective: Understand color relationships and their expressive potential in art.
Modules:

1. Primary, secondary, and tertiary colors
2. Color harmony and contrast
3. Warm and cool color schemes
4. Emotional and symbolic use of color
5. Mixing and applying color in compositions
   Practical Component: Create a color wheel and a painting exploring color harmony.

---

3. Painting Techniques and Mediums

Duration: 10 hours
Objective: Explore various painting mediums and techniques.
Modules:

1. Introduction to watercolor, acrylic, and oil paints
2. Brushwork and texture creation
3. Layering and glazing techniques
4. Composition and focal points

5. Finishing and preservation
   Practical Component: Produce a small painting using mixed media techniques.

---

4. Still Life and Object Study

Duration: 10 hours
Objective: Learn to observe and depict everyday objects with accuracy and expression.
Modules:

1. Composition and arrangement of objects
2. Light and shadow in still life
3. Texture and surface rendering
4. Color and tonal relationships
5. Expressive interpretation
   Practical Component: Create a still life painting or drawing using chosen materials.

---

5. Portrait Drawing and Painting

Duration: 10 hours
Objective: Develop skills in capturing human likeness and expression.
Modules:

1. Anatomy and facial proportions
2. Gesture and expression
3. Light and shadow on the face
4. Skin tones and color mixing
5. Stylization and abstraction
   Practical Component: Create a portrait study in pencil or paint.

---

6. Figure Drawing

Duration: 10 hours
Objective: Learn to draw the human figure with accuracy and movement.
Modules:

1. Human anatomy and proportions
2. Gesture drawing and poses
3. Foreshortening and perspective
4. Light, shadow, and volume
5. Expressive figure composition
   Practical Component: Produce a series of gesture and full-figure drawings.

---

7. Composition and Design Principles

Duration: 10 hours
Objective: Understand visual organization and design in art.
Modules:

1. Elements and principles of design
2. Balance, rhythm, and emphasis
3. Unity and variety in composition
4. Spatial organization and movement
5. Visual storytelling
   Practical Component: Create a composition applying design principles in a chosen medium.

---

8. Printmaking Basics

Duration: 10 hours
Objective: Explore traditional and modern printmaking techniques.
Modules:

1. Introduction to printmaking tools and materials
2. Relief printing (linocut, woodcut)
3. Monoprint and collagraph techniques
4. Inking and registration
5. Editioning and presentation
   Practical Component: Create a small edition of prints using a relief technique.

---

9. Sculpture and 3D Art

Duration: 10 hours
Objective: Learn to create three-dimensional artworks using various materials.
Modules:

1. Additive and subtractive sculpting methods
2. Clay, plaster, and mixed media techniques
3. Armature building and structure
4. Surface finishing and texture
5. Display and preservation
   Practical Component: Sculpt a small 3D artwork using clay or mixed media.

---

10. Mixed Media Art

Duration: 10 hours
Objective: Combine different materials and techniques for creative expression.
Modules:

1. Introduction to mixed media concepts
2. Layering and collage techniques

3. Texture and material experimentation
4. Integration of drawing, painting, and found objects
5. Composition and meaning
   Practical Component: Create a mixed media artwork exploring texture and layering.

---

11. Abstract Art and Expression

Duration: 10 hours
Objective: Explore abstraction and expressive approaches in art.
Modules:

1. History and evolution of abstract art
2. Simplification and distortion of forms
3. Color and gesture in abstraction
4. Emotional and conceptual expression
5. Composition and balance in abstract works
   Practical Component: Create an abstract painting expressing a chosen emotion or theme.

---

12. Landscape Painting

Duration: 10 hours
Objective: Learn to depict natural and built environments through painting.
Modules:

1. Composition and perspective in landscapes
2. Atmospheric effects and lighting
3. Color mixing for natural tones
4. Texture and brushwork
5. Outdoor (plein air) painting techniques
   Practical Component: Paint a landscape scene from observation or reference.

---

13. Digital Art and Illustration

Duration: 10 hours
Objective: Develop digital drawing and painting skills using software tools.
Modules:

1. Introduction to digital art tools (Photoshop, Procreate)
2. Brushes, layers, and blending modes
3. Digital sketching and coloring
4. Composition and storytelling
5. Exporting and presenting digital artworks
   Practical Component: Create a digital illustration based on a concept or theme.

---

14. Art History and Appreciation

Duration: 10 hours
Objective: Gain an understanding of major art movements and their influence.
Modules:

1. Overview of art history from ancient to modern
2. Key artists and their contributions
3. Styles, techniques, and cultural contexts
4. Visual analysis and critique
5. Contemporary art trends
   Practical Component: Prepare a visual presentation analyzing an artist or movement.

---

15. Calligraphy and Typography Art

Duration: 10 hours
Objective: Learn expressive lettering and typographic design.
Modules:

1. Introduction to calligraphy tools and scripts
2. Letterform structure and spacing
3. Decorative and modern calligraphy styles
4. Typography in design and art
5. Composition and layout
   Practical Component: Create a calligraphic artwork or typographic poster.

---

16. Collage and Assemblage Art

Duration: 10 hours
Objective: Explore creative composition using found materials.
Modules:

1. History and techniques of collage
2. Material selection and layering
3. Visual balance and texture
4. Conceptual and narrative collage
5. Assemblage and 3D composition
   Practical Component: Create a collage or assemblage artwork using mixed materials.

---

17. Art for Public Spaces

Duration: 10 hours
Objective: Learn to design and execute art for public and community spaces.
Modules:

1. Public art concepts and history
2. Site analysis and context
3. Scale, materials, and durability
4. Community engagement and collaboration
5. Documentation and installation
   Practical Component: Develop a concept proposal for a public art installation.

---

18. Art Therapy and Expression

Duration: 10 hours
Objective: Explore art as a tool for emotional expression and well-being.
Modules:

1. Introduction to art therapy principles
2. Symbolism and self-expression
3. Guided creative exercises
4. Reflective and mindful art practices
5. Applications in education and wellness
   Practical Component: Create an expressive artwork reflecting personal emotion or experience.

---

19. Contemporary Art Practices

Duration: 10 hours
Objective: Understand and experiment with contemporary art forms.
Modules:

1. Conceptual and performance art
2. Installation and new media
3. Social and political themes in art
4. Experimental materials and methods
5. Documentation and critique
   Practical Component: Develop a conceptual artwork using contemporary techniques.

---

20. Art Portfolio Development

Duration: 10 hours
Objective: Build a professional portfolio showcasing artistic skills and creativity.
Modules:

1. Portfolio structure and layout
2. Selecting and curating artworks
3. Visual storytelling and presentation
4. Digital vs. physical portfolio formats
5. Review and feedback
   Practical Component: Create a mini art portfolio with selected works and artist statement.

21. Murals and Large-Scale Art

Duration: 10 hours
Objective: Learn techniques for creating murals and large-scale artworks.
Modules:

1. Planning and scaling up designs
2. Surface preparation and materials
3. Techniques for wall painting
4. Color and composition for large formats
5. Preservation and maintenance
   Practical Component: Design and paint a scaled mural concept.

---

22. Print and Pattern Design

Duration: 10 hours
Objective: Create repeat patterns and prints for artistic and commercial use.
Modules:

1. Introduction to pattern design
2. Motif creation and repetition
3. Color and composition in patterns
4. Digital pattern creation
5. Application on textiles and products
   Practical Component: Design a repeat pattern for fabric or wallpaper.

---

23. Art Exhibition and Curation

Duration: 10 hours
Objective: Learn to plan, curate, and present art exhibitions.
Modules:

1. Exhibition planning and layout
2. Artwork selection and display
3. Lighting and labeling
4. Promotion and audience engagement
5. Documentation and evaluation
   Practical Component: Curate a small exhibition or virtual gallery of selected artworks.

---

24. Creative Problem Solving in Art

Duration: 10 hours
Objective: Enhance creativity and innovation in artistic practice.
Modules:

1. Design thinking for artists
2. Ideation and concept development
3. Experimentation with materials and techniques
4. Critical reflection and feedback
5. Presentation and refinement

   Practical Component: Conduct a creative project exploring an unconventional artistic idea.

Practical Product Design Support Courses (10-Hour Modules)

1. Rapid Prototyping Essentials

Duration: 10 hours
Objective: Equip learners with hands-on skills to create quick, functional prototypes for product validation.
Modules:

1. Introduction to prototyping tools and materials
2. Low-fidelity vs. high-fidelity prototypes
3. 3D printing basics and workflow
4. Laser cutting and model assembly
5. Prototype testing and iteration
   Practical Component: Build a working prototype of a simple consumer product.

---

2. Design Thinking in Practice

Duration: 10 hours
Objective: Apply design thinking methodology to solve real-world design challenges.
Modules:

1. Empathize: Understanding user needs
2. Define: Framing the design problem
3. Ideate: Generating creative solutions
4. Prototype: Bringing ideas to life
5. Test: Gathering feedback and refining
   Practical Component: Conduct a mini design sprint on a real-world problem.

---

3. CAD for Product Designers

Duration: 10 hours
Objective: Develop basic proficiency in 3D modeling for product visualization and prototyping.
Modules:

1. Introduction to CAD interface and tools
2. Sketching and constraints
3. 3D modeling of components
4. Assembly and rendering
5. Exporting files for prototyping
   Practical Component: Create and render a 3D model of a small product.

---

4. Materials and Manufacturing Basics

Duration: 10 hours
Objective: Understand material properties and manufacturing processes relevant to product design.
Modules:

1. Overview of materials (plastics, metals, wood, composites)
2. Manufacturing methods (molding, machining, additive manufacturing)
3. Material selection for design
4. Sustainable materials and eco-design
5. Case studies of real-world products
   Practical Component: Material selection and process plan for a sample product.

---

5. Human Factors and Ergonomics

Duration: 10 hours
Objective: Learn to design products that align with human comfort, usability, and safety.
Modules:

1. Introduction to ergonomics and anthropometry
2. Human-product interaction
3. Usability testing methods
4. Designing for accessibility and inclusivity
5. Ergonomic redesign exercise
   Practical Component: Redesign a common product for improved ergonomics.

---

6. Product Visualization and Rendering

Duration: 10 hours
Objective: Develop visual communication skills for presenting design concepts effectively.
Modules:

1. Basics of lighting, materials, and textures
2. Rendering workflows in KeyShot/Blender
3. Creating photorealistic visuals
4. Composition and storytelling in design visuals
5. Presentation-ready rendering project
   Practical Component: Render a product concept with realistic materials and lighting.

---

7. Sustainable Product Design

Duration: 10 hours
Objective: Integrate sustainability principles into product design decisions.
Modules:

1. Introduction to sustainable design
2. Life cycle thinking and environmental impact
3. Circular design and material reuse
4. Eco-friendly manufacturing practices
5. Sustainable product case study
   Practical Component: Develop a sustainable redesign proposal for an existing product.

---

8. Design Communication and Portfolio Building

Duration: 10 hours
Objective: Strengthen design presentation and portfolio development skills.
Modules:

1. Visual storytelling and layout principles
2. Documenting design process and outcomes
3. Creating impactful presentations
4. Portfolio structure and curation
5. Review and feedback session
   Practical Component: Create a mini design portfolio showcasing one project.

---

9. Product Photography for Designers

Duration: 10 hours
Objective: Learn to capture and present product designs professionally.
Modules:

1. Basics of product photography
2. Lighting setups and composition
3. Backgrounds and styling
4. Editing and post-processing
5. Creating a product photo series
   Practical Component: Photograph and edit images of a prototype or model.

---

10. Design Entrepreneurship Basics

Duration: 10 hours
Objective: Introduce business and entrepreneurial aspects of product design.
Modules:

1. Understanding design markets and trends
2. Product-market fit and user validation
3. Branding and storytelling for products
4. Costing, pricing, and value proposition
5. Pitching design ideas to investors or clients
   Practical Component: Develop a mini business pitch for a product concept.

11. User Research and Insights

Duration: 10 hours
Objective: Build practical skills in gathering and analyzing user data for design decisions.
Modules:

1. Introduction to user research methods
2. Conducting interviews and observations
3. Creating personas and empathy maps
4. Synthesizing insights into design opportunities
5. Presenting research findings
   Practical Component: Conduct a short user study and present insights for a design challenge.

---

12. Sketching and Concept Visualization

Duration: 10 hours
Objective: Strengthen hand sketching and visualization techniques for idea communication.
Modules:

1. Basics of perspective and proportion
2. Line quality and shading techniques
3. Exploded and cutaway views
4. Marker rendering and digital sketching
5. Concept sheet creation
   Practical Component: Develop a concept sketch series for a new product idea.

---

13. Design for Additive Manufacturing

Duration: 10 hours
Objective: Learn to design products optimized for 3D printing and digital fabrication.
Modules:

1. Overview of additive manufacturing technologies
2. Design constraints and opportunities
3. File preparation and slicing
4. Post-processing and finishing
5. Case studies of 3D-printed products
   Practical Component: Design and print a small functional prototype.

---

14. Color, Material, and Finish (CMF) Design

Duration: 10 hours
Objective: Understand how color, material, and finish influence product perception and usability.
Modules:

1. Fundamentals of CMF design
2. Color psychology and trends
3. Material selection and surface finishes
4. Prototyping CMF samples
5. CMF documentation and presentation
   Practical Component: Create a CMF board for a consumer product.

---

15. IoT and Smart Product Basics

Duration: 10 hours
Objective: Introduce the integration of technology and connectivity in product design.
Modules:

1. Fundamentals of IoT systems
2. Sensors, actuators, and microcontrollers
3. Designing for connectivity and interaction
4. Prototyping smart product concepts
5. Case studies of IoT-enabled designs
   Practical Component: Develop a concept for a connected product prototype.

---

16. Packaging Design and Prototyping

Duration: 10 hours
Objective: Learn practical packaging design techniques for product protection and branding.
Modules:

1. Packaging design principles
2. Material selection and sustainability
3. Structural design and dielines
4. Branding and visual communication
5. Prototype creation and testing
   Practical Component: Design and prototype packaging for a small product.

---

17. Design for Sustainability and Circular Economy

Duration: 10 hours
Objective: Apply circular economy principles to product design.
Modules:

1. Introduction to circular design
2. Product life extension strategies
3. Design for disassembly and recycling
4. Business models for circular products
5. Case studies and applications
   Practical Component: Develop a circular redesign concept for an existing product.

18. Digital Fabrication Workshop

Duration: 10 hours
Objective: Gain hands-on experience with digital fabrication tools and workflows.
Modules:

1. Introduction to CNC, laser cutting, and 3D printing
2. File preparation and machine setup
3. Safety and maintenance
4. Assembly and finishing techniques
5. Fabrication project execution
   Practical Component: Fabricate a small product using at least two digital fabrication methods.

---

19. Design Project Management

Duration: 10 hours
Objective: Learn to plan, manage, and execute design projects efficiently.
Modules:

1. Project planning and scheduling
2. Resource allocation and budgeting
3. Team collaboration and communication
4. Risk management and quality control
5. Project documentation and delivery
   Practical Component: Create a project plan for a design project from concept to delivery.

---

20. Visual Branding for Product Designers

Duration: 10 hours
Objective: Understand how branding influences product identity and market success.
Modules:

1. Fundamentals of brand identity
2. Logo and packaging integration
3. Visual language and consistency
4. Brand storytelling and positioning
5. Case studies of successful product brands
   Practical Component: Develop a visual brand identity for a new product concept.

---

21. AR/VR for Product Visualization

Duration: 10 hours
Objective: Explore augmented and virtual reality tools for immersive design visualization.
Modules:

1. Introduction to AR/VR technologies
2. Setting up 3D environments
3. Importing and optimizing models
4. Interactive product visualization
5. Presentation and feedback
   Practical Component: Create an AR/VR visualization of a product concept.

---

22. Design Ethics and Social Impact

Duration: 10 hours
Objective: Understand ethical considerations and social responsibility in design practice.
Modules:

1. Ethics in design decision-making
2. Inclusive and accessible design
3. Designing for social good
4. Cultural sensitivity in design
5. Case studies of ethical design practices
   Practical Component: Develop a socially impactful design proposal.

---

23. Product Lifecycle and Maintenance Design

Duration: 10 hours
Objective: Learn to design products for longevity, repairability, and maintenance.
Modules:

1. Product lifecycle stages
2. Design for durability and repair
3. Maintenance-friendly design principles
4. End-of-life strategies
5. Lifecycle documentation
   Practical Component: Redesign a product for improved maintenance and longevity.

---

24. Creative Problem Solving for Designers

Duration: 10 hours
Objective: Enhance creative thinking and problem-solving skills in design contexts.
Modules:

1. Divergent and convergent thinking
2. Brainstorming and ideation tools
3. Lateral thinking techniques
4. Rapid concept generation
5. Evaluating and refining ideas
   Practical Component: Conduct a creative ideation session and present top concepts.

DOCUMENT

Practical Fashion Design Support Courses (10-Hour Modules)

1. Fashion Sketching and Illustration

Duration: 10 hours
Objective: Develop essential fashion sketching and illustration skills for design communication.
Modules:

1. Fashion figure drawing and proportions
2. Garment detailing and fabric rendering
3. Color application and texture representation
4. Digital fashion sketching tools
5. Creating a fashion illustration portfolio
   Practical Component: Create a series of illustrated fashion looks for a themed collection.

---

2. Fabric Knowledge and Textile Science

Duration: 10 hours
Objective: Understand fabric types, properties, and their applications in fashion design.
Modules:

1. Classification of textiles and fibers
2. Fabric construction and finishes
3. Fabric behavior and drape analysis
4. Sustainable and smart textiles
5. Textile testing and selection for design
   Practical Component: Develop a fabric swatch book with analysis notes for different garments.

---

3. Pattern Making Fundamentals

Duration: 10 hours
Objective: Learn the basics of pattern development for garment construction.
Modules:

1. Introduction to pattern tools and terminology
2. Body measurements and size charts
3. Drafting basic blocks (bodice, skirt, sleeve)
4. Pattern alteration and fitting
5. Pattern layout and cutting techniques
   Practical Component: Draft and cut a basic bodice pattern for a custom fit.

---

4. Garment Construction Techniques

Duration: 10 hours
Objective: Gain hands-on experience in sewing and garment assembly.
Modules:

1. Sewing machine operation and maintenance
2. Seams, hems, and finishing techniques
3. Zippers, buttons, and closures
4. Lining and interfacing methods
5. Quality control and finishing
   Practical Component: Construct a simple garment using learned techniques.

---

5. Fashion Draping on Dress Form

Duration: 10 hours
Objective: Explore creative garment development through draping techniques.
Modules:

1. Introduction to draping tools and materials
2. Draping basic bodice and skirt
3. Creating gathers, pleats, and folds
4. Translating draped designs into patterns
5. Finishing and presentation
   Practical Component: Drape and pin a creative top or dress design on a mannequin.

---

6. Fashion CAD and Digital Design

Duration: 10 hours
Objective: Learn digital tools for fashion design visualization and technical documentation.
Modules:

1. Introduction to fashion CAD software
2. Digital flat sketches and technical drawings
3. Colorways and fabric mapping
4. Digital mood boards and presentations
5. File management and print-ready outputs
   Practical Component: Create a digital fashion board with flats and color variations.

---

7. Sustainable Fashion Design

Duration: 10 hours
Objective: Apply sustainability principles to fashion design and production.
Modules:

1. Sustainable materials and sourcing
2. Zero-waste pattern making
3. Upcycling and repurposing techniques
4. Ethical production and fair trade
5. Case studies in sustainable fashion
   Practical Component: Design a sustainable garment using recycled or eco-friendly materials.

---

8. Fashion Styling and Visual Presentation

Duration: 10 hours
Objective: Develop styling and presentation skills for fashion communication.
Modules:

1. Principles of fashion styling
2. Body types and wardrobe coordination
3. Accessory and color coordination
4. Fashion shoot planning and execution
5. Visual merchandising and display
   Practical Component: Style and photograph a complete fashion look for a concept theme.

---

9. Fashion Portfolio Development

Duration: 10 hours
Objective: Build a professional portfolio showcasing design skills and creativity.
Modules:

1. Portfolio structure and layout
2. Selecting and curating design projects
3. Visual storytelling and presentation
4. Digital vs. physical portfolio formats
5. Review and feedback session
   Practical Component: Create a mini fashion portfolio with sketches, flats, and photos.

---

10. Fashion Trend Forecasting

Duration: 10 hours
Objective: Learn to analyze and predict fashion trends for design inspiration.
Modules:

1. Understanding trend cycles and influences
2. Researching global fashion trends
3. Color and fabric forecasting
4. Creating trend boards and reports
5. Applying trends to design collections
   Practical Component: Develop a trend forecast board for an upcoming fashion season.

11. Fashion Marketing and Branding

Duration: 10 hours
Objective: Understand branding and marketing strategies in the fashion industry.
Modules:

1. Fundamentals of fashion branding
2. Market segmentation and positioning
3. Brand identity and storytelling
4. Digital marketing and social media
5. Case studies of successful fashion brands
   Practical Component: Create a brand identity and marketing plan for a fashion label.

---

12. Accessory Design Basics

Duration: 10 hours
Objective: Explore the design and creation of fashion accessories.
Modules:

1. Introduction to accessory categories
2. Material selection and construction methods
3. Design sketching and prototyping
4. Functional and aesthetic considerations
5. Branding and presentation
   Practical Component: Design and prototype a small accessory such as a bag or belt.

---

13. Fashion Photography and Lookbook Creation

Duration: 10 hours
Objective: Learn to capture and present fashion collections professionally.
Modules:

1. Basics of fashion photography
2. Lighting, composition, and styling
3. Model posing and direction
4. Editing and layout design
5. Creating a digital lookbook
   Practical Component: Photograph a styled outfit and compile a mini lookbook.

---

14. Textile Surface Design

Duration: 10 hours
Objective: Develop creative surface embellishment techniques for textiles.
Modules:

1. Introduction to surface design methods
2. Printing and dyeing techniques
3. Embroidery and appliqué
4. Fabric manipulation and texture creation
5. Design application and finishing
   Practical Component: Create a textile sample using at least two surface design techniques.

---

15. Fashion Entrepreneurship

Duration: 10 hours
Objective: Introduce business and entrepreneurial aspects of fashion design.
Modules:

1. Starting a fashion brand
2. Business models and pricing strategies
3. Sourcing and production management
4. Retail and e-commerce strategies
5. Pitching and funding opportunities
   Practical Component: Develop a business plan for a small fashion startup.

---

16. Costume Design for Performance

Duration: 10 hours
Objective: Learn the fundamentals of designing costumes for stage and screen.
Modules:

1. Researching character and context
2. Costume sketching and storyboarding
3. Fabric and color selection for performance
4. Construction and fitting considerations
5. Presentation and documentation
   Practical Component: Design a costume concept for a film or theater character.

---

17. Fashion Draping for Creative Design

Duration: 10 hours
Objective: Explore advanced draping techniques for innovative garment forms.
Modules:

1. Experimental draping methods
2. Asymmetry and volume exploration
3. Combining draping with pattern cutting
4. Fabric behavior and flow
5. Presentation of creative draped designs
   Practical Component: Create an avant-garde draped garment concept.

18. Digital Fashion and 3D Garment Simulation

Duration: 10 hours
Objective: Learn to design and visualize garments using 3D fashion software.
Modules:

1. Introduction to 3D fashion tools (CLO3D, Browzwear)
2. Avatar setup and garment simulation
3. Fabric physics and texture mapping
4. Rendering and animation
5. Exporting digital garments for presentation
   Practical Component: Create a 3D garment simulation and render it for a digital portfolio.

---

19. Fashion Show Production

Duration: 10 hours
Objective: Understand the process of planning and executing a fashion show.
Modules:

1. Concept development and theme selection
2. Model casting and choreography
3. Lighting, music, and stage design
4. Backstage management and coordination
5. Event promotion and media coverage
   Practical Component: Plan and present a mini fashion show concept.

---

20. Fashion Ethics and Social Responsibility

Duration: 10 hours
Objective: Explore ethical and social issues in the fashion industry.
Modules:

1. Ethical sourcing and labor practices
2. Environmental impact of fashion
3. Cultural sensitivity in design
4. Transparency and traceability
5. Case studies of ethical fashion brands
   Practical Component: Develop an ethical fashion proposal addressing a social issue.

---

21. Fashion Accessory Prototyping

Duration: 10 hours
Objective: Learn to prototype wearable accessories using various materials.
Modules:

1. Material exploration (leather, metal, fabric)
2. Handcrafting and assembly techniques
3. Functional testing and refinement
4. Finishing and detailing
5. Presentation and documentation
   Practical Component: Prototype a wearable accessory such as jewelry or footwear.

---

22. Fashion Communication and PR

Duration: 10 hours
Objective: Learn communication strategies for promoting fashion brands and designers.
Modules:

1. Fashion journalism and writing
2. Press releases and media kits
3. Event and influencer collaborations
4. Social media campaigns
5. Crisis management and brand reputation
   Practical Component: Create a PR campaign for a fashion collection launch.

---

23. Fashion Merchandising and Retail

Duration: 10 hours
Objective: Understand merchandising principles and retail operations in fashion.
Modules:

1. Retail formats and consumer behavior
2. Visual merchandising and store layout
3. Inventory and supply chain management
4. Pricing and sales strategies
5. Retail analytics and trend tracking
   Practical Component: Design a visual merchandising plan for a retail display.

---

24. Creative Problem Solving in Fashion Design

Duration: 10 hours
Objective: Enhance creativity and innovation in fashion design processes.
Modules:

1. Design thinking for fashion
2. Ideation and concept development
3. Experimentation with materials and forms
4. Rapid prototyping and feedback
5. Refinement and presentation
   Practical Component: Conduct a creative design sprint to develop an innovative fashion

concept.

DOCUMENT

DOCUMENT

DOCUMENT

Practical Graphic Design Support Courses (10-Hour Modules)

1. Fundamentals of Graphic Design

Duration: 10 hours
Objective: Understand the core principles and elements of graphic design.
Modules:

1. Elements and principles of design
2. Composition, balance, and hierarchy
3. Color theory and typography basics
4. Visual communication and storytelling
5. Design process and critique
   Practical Component: Create a poster applying design principles and visual hierarchy.

---

2. Typography and Layout Design

Duration: 10 hours
Objective: Learn the art of typography and effective layout composition.
Modules:

1. Anatomy of type and classification
2. Font pairing and readability
3. Grid systems and alignment
4. Hierarchy and spacing
5. Layout design for print and digital media
   Practical Component: Design a magazine spread or brochure layout using typographic hierarchy.

---

3. Color Theory and Application

Duration: 10 hours
Objective: Explore color psychology and its use in design communication.
Modules:

1. Color models (RGB, CMYK, Pantone)
2. Color harmony and contrast
3. Emotional and cultural meanings of color

4. Color in branding and identity
5. Accessibility and color balance
   Practical Component: Create a color palette and apply it to a brand identity project.

---

4. Adobe Photoshop Essentials

Duration: 10 hours
Objective: Learn image editing and compositing using Adobe Photoshop.
Modules:

1. Interface and workspace setup
2. Image correction and retouching
3. Layers, masks, and blending modes
4. Photo manipulation and effects
5. Exporting and optimization
   Practical Component: Design a digital poster using photo editing and compositing techniques.

---

5. Adobe Illustrator for Designers

Duration: 10 hours
Objective: Master vector-based design for logos and illustrations.
Modules:

1. Tools and workspace overview
2. Shapes, paths, and pen tool mastery
3. Typography and vector graphics
4. Logo and icon design
5. File preparation for print and web
   Practical Component: Create a logo and icon set for a fictional brand.

---

6. Adobe InDesign for Layouts

Duration: 10 hours
Objective: Learn professional layout design for print and digital publications.
Modules:

1. Document setup and grids
2. Text and image placement
3. Master pages and styles
4. Interactive PDFs and digital layouts
5. Prepress and export settings
   Practical Component: Design a multi-page brochure or catalog layout.

---

7. Branding and Visual Identity Design

Duration: 10 hours
Objective: Develop cohesive brand identities through design systems.
Modules:

1. Brand strategy and positioning
2. Logo design and brand marks
3. Color, typography, and imagery systems
4. Brand guidelines and consistency
5. Case studies of successful brands
   Practical Component: Create a complete brand identity package for a startup.

---

8. Digital Illustration Techniques

Duration: 10 hours
Objective: Explore digital drawing and illustration for creative projects.
Modules:

1. Introduction to digital illustration tools
2. Sketching and line art
3. Coloring and shading techniques
4. Character and concept illustration
5. Composition and storytelling
   Practical Component: Create a digital illustration for a book or poster.

---

9. Motion Graphics and Animation Basics

Duration: 10 hours
Objective: Learn to create animated graphics for digital media.
Modules:

1. Principles of motion design
2. Keyframing and transitions
3. Text and logo animation
4. Audio synchronization
5. Exporting for web and video
   Practical Component: Create a short animated logo or title sequence.

---

10. User Interface (UI) Design Fundamentals

Duration: 10 hours
Objective: Understand the principles of designing intuitive digital interfaces.
Modules:

1. UI design principles and patterns
2. Wireframing and prototyping

3. Visual hierarchy and consistency
4. Accessibility and usability
5. Design systems and components
   Practical Component: Design a mobile app interface for a specific user goal.

---

11. User Experience (UX) Design Basics

Duration: 10 hours
Objective: Learn to design user-centered digital experiences.
Modules:

1. UX research and personas
2. Information architecture
3. Wireframes and user flows
4. Usability testing and feedback
5. Iteration and refinement
   Practical Component: Create a UX prototype for a website or app.

---

12. Packaging Design

Duration: 10 hours
Objective: Learn to design functional and aesthetic packaging.
Modules:

1. Packaging structure and dielines
2. Material selection and sustainability
3. Branding and visual hierarchy
4. Typography and labeling
5. Mockups and presentation
   Practical Component: Design packaging for a consumer product with branding elements.

---

13. Infographic and Data Visualization Design

Duration: 10 hours
Objective: Communicate complex information visually through design.
Modules:

1. Principles of data visualization
2. Charts, icons, and symbols
3. Hierarchy and flow in infographics
4. Color and typography for clarity
5. Interactive and digital infographics
   Practical Component: Create an infographic explaining a social or environmental issue.

---

14. Social Media Design

Duration: 10 hours
Objective: Design engaging content for social media platforms.
Modules:

1. Platform-specific design formats
2. Visual storytelling and branding
3. Typography and color for digital media
4. Animation and reels design
5. Analytics and optimization
   Practical Component: Create a social media campaign with multiple post designs.

---

15. Poster and Print Design

Duration: 10 hours
Objective: Learn to design impactful posters and print materials.
Modules:

1. Poster composition and hierarchy
2. Typography and imagery integration
3. Color and contrast for visibility
4. Printing techniques and formats
5. Concept development and critique
   Practical Component: Design a poster for an event or awareness campaign.

---

16. Advertising and Marketing Design

Duration: 10 hours
Objective: Create persuasive visual communication for marketing.
Modules:

1. Advertising principles and psychology
2. Campaign concept development
3. Copy and visual integration
4. Print and digital ad formats
5. Branding consistency across media
   Practical Component: Design a print and digital ad campaign for a product.

---

17. Portfolio Development for Designers

Duration: 10 hours
Objective: Build a professional portfolio showcasing design skills.
Modules:

1. Portfolio structure and layout
2. Selecting and curating projects
3. Visual storytelling and presentation
4. Digital vs. print portfolios
5. Review and feedback
   Practical Component: Create a mini portfolio with three completed design projects.

---

18. Design Thinking for Creatives

Duration: 10 hours
Objective: Apply design thinking to solve creative challenges.
Modules:

1. Empathize: understanding user needs
2. Define: framing design problems
3. Ideate: generating creative solutions
4. Prototype: visualizing ideas
5. Test: feedback and iteration
   Practical Component: Conduct a design sprint to solve a real-world design problem.

---

19. Branding for Digital Platforms

Duration: 10 hours
Objective: Adapt brand identity for digital and interactive media.
Modules:

1. Digital branding principles
2. Responsive logo and identity systems
3. Social media and web branding
4. Motion and interactive branding
5. Case studies of digital-first brands
   Practical Component: Create a digital brand identity kit for an online business.

---

20. Creative Illustration for Branding

Duration: 10 hours
Objective: Use illustration as a tool for brand storytelling.
Modules:

1. Illustration styles and techniques
2. Brand storytelling through visuals
3. Character and mascot design
4. Integration with brand identity
5. Application across media
   Practical Component: Design a set of brand illustrations or mascots.

21. Print Production and Prepress

Duration: 10 hours
Objective: Learn technical processes for preparing designs for print.
Modules:

1. Printing methods and materials
2. Color management and proofing
3. File formats and resolution
4. Bleeds, trims, and margins
5. Quality control and finishing
   Practical Component: Prepare a print-ready file for a brochure or poster.

---

22. Creative Advertising Concepts

Duration: 10 hours
Objective: Develop innovative advertising ideas and visuals.
Modules:

1. Concept development and brainstorming
2. Visual metaphors and storytelling
3. Copywriting for designers
4. Campaign consistency and tone
5. Presentation and pitching
   Practical Component: Create a concept board for a creative ad campaign.

---

23. Design Ethics and Professional Practice

Duration: 10 hours
Objective: Understand ethical and professional standards in design practice.
Modules:

1. Intellectual property and copyright
2. Client relationships and contracts
3. Ethical design and social responsibility
4. Pricing and freelancing basics
5. Professional conduct and case studies
   Practical Component: Draft a professional code of ethics for a design studio.

---

24. Creative Problem Solving in Graphic Design

Duration: 10 hours
Objective: Enhance creativity and innovation in design processes.
Modules:

1. Lateral thinking and ideation
2. Visual experimentation and iteration
3. Conceptual development
4. Feedback and refinement
5. Presentation and critique

   Practical Component: Conduct a creative design sprint to develop an innovative visual solution.

DOCUMENT

Practical Civil Engineering Support Courses (10-Hour Modules)

1. Engineering Drawing and Drafting

Duration: 10 hours
Objective: Develop technical drawing and drafting skills for civil engineering applications.
Modules:

1. Introduction to engineering drawing tools and standards
2. Orthographic and isometric projections
3. Structural and site plan drafting
4. Dimensioning and annotation
5. Plotting and documentation
   Practical Component: Draft a complete set of structural and site drawings for a small project.

---

2. Surveying and Leveling Techniques

Duration: 10 hours
Objective: Learn practical surveying methods for land measurement and mapping.
Modules:

1. Principles of surveying and instruments
2. Chain and compass surveying
3. Leveling and contour mapping
4. Total station and GPS applications
5. Data recording and plotting
   Practical Component: Conduct a field survey and prepare a contour map of a selected site.

---

3. Building Materials and Testing

Duration: 10 hours
Objective: Understand the properties and testing of construction materials.
Modules:

1. Overview of building materials (cement, concrete, steel, aggregates)
2. Material selection and quality control
3. Laboratory testing methods
4. Non-destructive testing techniques
5. Sustainable and alternative materials
   Practical Component: Perform basic material tests and prepare a material property report.

---

4. Concrete Technology Basics

Duration: 10 hours
Objective: Learn the fundamentals of concrete mix design and testing.
Modules:

1. Components of concrete and their functions
2. Mix design principles
3. Workability and strength testing
4. Curing and durability considerations
5. Quality control in concrete production
   Practical Component: Design and test a concrete mix for a specific strength requirement.

---

5. Structural Analysis and Modeling

Duration: 10 hours
Objective: Apply structural analysis principles using manual and software-based methods.
Modules:

1. Basics of structural systems and loads
2. Analysis of beams, trusses, and frames
3. Introduction to structural modeling software (STAAD.Pro, ETABS)
4. Load combinations and deflection checks
5. Interpretation of analysis results
   Practical Component: Model and analyze a simple structural frame using software.

---

6. Reinforced Concrete Detailing

Duration: 10 hours
Objective: Learn reinforcement detailing and drawing preparation for RCC structures.
Modules:

1. Reinforcement types and placement rules
2. Detailing of beams, slabs, and columns
3. Bar bending schedules
4. Drawing conventions and standards
5. Checking and reviewing reinforcement drawings
   Practical Component: Prepare reinforcement drawings and bar bending schedule for a small RCC element.

---

7. Construction Project Management

Duration: 10 hours
Objective: Understand project planning, scheduling, and management techniques.
Modules:

1. Project life cycle and planning
2. Work breakdown structure (WBS)
3. Scheduling using Gantt charts and CPM
4. Resource allocation and cost control
5. Monitoring and reporting
   Practical Component: Develop a project schedule and resource plan for a small construction project.

---

8. Estimation and Costing

Duration: 10 hours
Objective: Learn to estimate quantities and prepare cost analyses for construction projects.
Modules:

1. Types of estimates and methods
2. Quantity take-off and measurement
3. Rate analysis and cost components
4. Bill of quantities (BOQ) preparation
5. Cost control and budgeting
   Practical Component: Prepare a detailed estimate and BOQ for a residential building.

---

9. Geotechnical Engineering Applications

Duration: 10 hours
Objective: Explore soil mechanics and foundation engineering practices.
Modules:

1. Soil classification and properties
2. Field and laboratory testing
3. Bearing capacity and settlement analysis
4. Foundation types and design considerations
5. Ground improvement techniques
   Practical Component: Conduct a soil test and prepare a foundation recommendation report.

---

10. Transportation Engineering Basics

Duration: 10 hours
Objective: Learn the fundamentals of road and transportation system design.
Modules:

1. Road classification and alignment
2. Geometric design of highways
3. Pavement materials and design
4. Traffic studies and control devices

5. Maintenance and safety considerations
   Practical Component: Design a simple road alignment and prepare a geometric layout.

---

11. Water Supply and Sanitation Systems

Duration: 10 hours
Objective: Understand the design and operation of water and wastewater systems.
Modules:

1. Water demand and distribution systems
2. Pipe network design and hydraulics
3. Wastewater collection and treatment
4. Stormwater management
5. Sustainable water practices
   Practical Component: Design a small water supply and drainage layout for a residential area.

---

12. Environmental Engineering Practices

Duration: 10 hours
Objective: Learn environmental management and pollution control techniques.
Modules:

1. Water and air pollution fundamentals
2. Solid waste management
3. Wastewater treatment processes
4. Environmental impact assessment (EIA)
5. Sustainable construction practices
   Practical Component: Prepare an environmental management plan for a construction project.

---

13. Structural Design Using Software

Duration: 10 hours
Objective: Apply design principles using structural design software.
Modules:

1. Introduction to design codes and standards
2. Modeling and load application
3. Design of beams, columns, and slabs
4. Checking design outputs
5. Report generation and documentation
   Practical Component: Design a small RCC structure using ETABS or STAAD.Pro.

---

14. Building Information Modeling (BIM) for Civil Engineers

Duration: 10 hours
Objective: Learn BIM tools for integrated design and project coordination.
Modules:

1. Introduction to BIM concepts
2. Modeling in Revit or similar software
3. Clash detection and coordination
4. Quantity extraction and scheduling
5. BIM documentation and collaboration
   Practical Component: Create a BIM model for a small building project.

---

15. Construction Safety and Quality Management

Duration: 10 hours
Objective: Understand safety protocols and quality assurance in construction.
Modules:

1. Safety standards and regulations
2. Hazard identification and risk assessment
3. Quality control procedures
4. Inspection and testing plans
5. Documentation and audits
   Practical Component: Develop a safety and quality management plan for a construction site.

---

16. Structural Steel Design

Duration: 10 hours
Objective: Learn the fundamentals of steel structure design and detailing.
Modules:

1. Properties of structural steel
2. Design of tension and compression members
3. Beam and column design
4. Connection detailing
5. Fabrication and erection considerations
   Practical Component: Design and detail a simple steel truss or frame.

---

17. Pavement Design and Maintenance

Duration: 10 hours
Objective: Understand pavement design principles and maintenance strategies.
Modules:

1. Pavement types and layers
2. Traffic and load considerations

3. Flexible and rigid pavement design
4. Distress identification and maintenance
5. Pavement management systems
   Practical Component: Design a flexible pavement section for a local road.

---

18. Quantity Surveying and Contract Management

Duration: 10 hours
Objective: Learn contract administration and cost management in construction.
Modules:

1. Roles of a quantity surveyor
2. Contract types and clauses
3. Tendering and bidding process
4. Payment and claims management
5. Dispute resolution and documentation
   Practical Component: Prepare a tender document and cost summary for a project.

---

19. Structural Health Monitoring

Duration: 10 hours
Objective: Learn techniques for assessing and maintaining structural integrity.
Modules:

1. Introduction to structural health monitoring (SHM)
2. Sensors and instrumentation
3. Data collection and analysis
4. Damage detection and maintenance planning
5. Case studies of SHM applications
   Practical Component: Develop a monitoring plan for an existing structure.

---

20. Green Building and Sustainable Construction

Duration: 10 hours
Objective: Apply sustainability principles in civil engineering projects.
Modules:

1. Green building concepts and certifications
2. Energy-efficient materials and systems
3. Water conservation and waste reduction
4. Life cycle assessment
5. Case studies of sustainable projects
   Practical Component: Propose sustainable design strategies for a small building.

---

21. Bridge Design Fundamentals

Duration: 10 hours
Objective: Understand the basics of bridge design and analysis.
Modules:

1. Types and components of bridges
2. Load considerations and analysis
3. Design of deck and supports
4. Construction methods and materials
5. Inspection and maintenance
   Practical Component: Design a small-span bridge concept with load calculations.

---

22. Geospatial Applications in Civil Engineering

Duration: 10 hours
Objective: Learn GIS and remote sensing applications for civil projects.
Modules:

1. Introduction to GIS and spatial data
2. Mapping and data collection
3. Remote sensing and image interpretation
4. GIS analysis for planning and infrastructure
5. Integration with CAD and BIM
   Practical Component: Create a GIS-based site analysis map for an infrastructure project.

---

23. Earthquake Resistant Design

Duration: 10 hours
Objective: Learn seismic design principles for safe structural performance.
Modules:

1. Basics of earthquake engineering
2. Seismic loads and response
3. Ductile detailing and design codes
4. Retrofitting and strengthening techniques
5. Case studies of seismic design
   Practical Component: Design a small RCC frame for seismic resistance.

---

24. Creative Problem Solving in Civil Engineering

Duration: 10 hours
Objective: Enhance innovation and critical thinking in engineering design.
Modules:

1. Design thinking for civil engineers
2. Problem identification and ideation
3. Concept development and evaluation
4. Prototyping and testing
5. Presentation and feedback
   Practical Component: Conduct a design sprint to solve a real-world civil engineering challenge.