SHARDA UNIVERSITY
Beyond Boundaries

SHARDA SCHOOL OF DESIGN, ARCHITECTURE & PLANNING

AI Principles in Architecture & Design
NV41001

VALUE ADDED COURSE
BROCHURE 2025-26

ABOUT THE UNIVERSITY

Sharda University is a leading NAAC A+ educational institution based out of Greater Noida, Delhi NCR. A venture of the well-known Sharda Group of Institutions (SGI), The University has established itself as a high-quality education provider with major focus on holistic learning and imbibing competitive abilities in students.

ABOUT SCHOOL

Sharda School of Design, Architecture & Planning (SSDAP) prepares the students for the real world they can make a lasting impact in designing the future and have an exciting and rewarding career. The students at SSDAP have crafted the world as renowned landscape architects, urban planners, urban designers, and history preservationists.

The school's nationally accredited degree programs, world-class faculty, and state-of-the-art facilities connect to provide the students with a broad range of opportunities in both the public and private sectors of the industry. SSDAP leads the students through both practical and theoretical learning until they can master in an innovative design that reflects art and science.

The school has forged numerous connections and partnerships with schools and professionals in countries around the world. The faculty comprises academicians from internationally renowned universities such as the School of Planning & Architecture, B.I.T Mesra, National Institute of Fashion Technology (NIFT), Sheffield University, Nottingham Trent University and Delhi College of Art, University of Delhi as well as leading Architectural practitioners and Planning professionals from all over the country.

ABOUT DEPARTMENT

Department of Art & Design established in 2012 at Sharda University, as a multi-disciplinary department has been working tirelessly towards creating global design citizens. Holding their hands, driving them towards innovation through future aligned design thinking & design process, with continuous industry interactions through experiential project-based learning. Its aim is to establish Sharda as a premier center of Design education, where Students are surrounded by an environment of design intuitively based on strenuous research with an aim of developing a new generation of designers, who not only fill the gap of creative entrepreneurs but integrate social and environmental concern to become responsible designers with a mission of

- **Industry-based learning** within the classroom projects as the core of practical teaching, which will include continuous interaction with industries and industry experts to train students as confident Professionals for the future who are initiators & leaders.
- **Related Study Program (RSP)** as research projects based on complete business model by studying, analyzing crafts, connecting business with social impacts while exploring to the maximum and putting them on the forefront of the competitive design industry. Create craft-based design patents from RSPs as well as convert craft documentation into Publications & sources of innovation, combining craftsmanship with technology.
- **Sharda Design Center (SDC)**, used as a vehicle to connect industry with students, business with fresh minds and an instrument to establish Sharda as a multi-disciplinary design interaction center.

Vision of Department

- To be at the Centre of Excellence in Art & Design Education to shape future-ready professionals catering the needs of the design industry and the society

Mission of Department

- To create a global center of innovation and excellence in art and design industry.
- Promoting in-depth research in art and design studies for sustainable practices.
- To inculcate critical, analytical, cognitive, speculative and creative problem-solving skills.
- To develop a sense of social and professional ethics and values.
- To develop the essence of craftsmanship, future technological and vocational skills.

About Value Added Course for Session 2025-2026

In accordance with the University requirement for Value Added Courses, the Department of Art & Design intends to conduct these courses in collaboration with Sharda Skills

"AI Principles in Architecture & Design" NV41001 for 3rd Semester, 2nd year students pursuing Bachelors of Design and BVA respectively.

COURSE OUTCOMES

CO1: Understand different types of data used in design fields
CO2: Collect and structure real-world datasets using no-code tools
CO3: Clean and organize datasets visually without scripting
CO4: Interpret data patterns through visualizations for design decision-making
CO5: Create dashboards and storytelling outputs from structured data

AI -PRINCIPLES IN ARCHITECTURE & DESIGN (NV41001)

Outline syllabus		
WEEK	CONTENT	Duration Hrs.
18 July 2025	**Data Foundations for Designers**	2
25 July 2025	Spreadsheets as data canvases, Common errors: missing values, typos, format issues Filtering, sorting, validating inputs using: Google Sheets, Excel, Use-case cleaning exercises per domain	2
01 Aug 2025	Fashion: Product style cleanup, Architecture: Site measurement table Tools: Google Sheets, Excel, Visual Arts: Artworks dataset by genre	2
08 Aug 2025	**Data Collection Methods**	2
22 Aug 2025	What makes a good visual representation? Charts: Bar, Pie, Line, Scatter, Heatmap Design-led insights, Interior: Layout efficiency	2
29 Aug 2025	Communication: Message reach , Fashion: Color trend evolution Tools: Canva Graph Maker, Flourish, Tableau Public (no-code), Hands-on: Create a small report with 2–3 visual charts	2
05 Sep 2025	**Structuring and Cleaning Data Visually**	2
12 Sep 2025	Spreadsheets as data canvases, Common errors: missing values, typos, format issues Filtering, sorting, validating inputs using: Google Sheets, Excel, Use-case cleaning exercises per domain	2
19 Sep 2025	Fashion: Product style cleanup, Architecture: Site measurement table Tools: Google Sheets, Excel, Visual Arts: Artworks dataset by genre	2
26 Sep 2025	**Data Visualization for Creative Interpretation**	2
03 Oct 2025	What makes a good visual representation?, Charts: Bar, Pie, Line, Scatter, Heatmap Design-led insights, Interior: Layout efficiency	2
10 Oct 2025	Communication: Message reach, Fashion: Color trend evolution Tools: Canva Graph Maker, Flourish, Tableau Public (no-code), Hands-on: Create a small report with 2–3 visual charts	2
17 Oct 2025	**Dashboards, Visual Summaries, and AI-Assisted Insights**	2
31 Oct 2025	Combining visuals into dashboards, Narrative insights: Telling a story from your data	2
07 Nov 2025	Using AI to summarize insights (ChatGPT, Google Sheets AI), Presenting visuals in a design context	2
14 Nov 2025	Tools: ChatGPT, Google Sheets AI, Canva Dashboard Templates, Hands-on: Create a dashboard (PDF/poster) for any one domain project	2

FACULTY PROFILE

Nishant Chaturvedi
Technical Trainer (Sharda Informatics)

More than 15 years of experience in designing, development, debugging and analyzing of large amount of data and implementation of software applications.

I hold a B.Tech. in Information Technology from UPTU and MTech. from BITS Pilani. I have worked in various product based and service-based companies. Some of my past organizations are HCL, Ericssion and Globallogic.

My past experience is mostly into Data Science and Machine Learning. My last engagement was with HCL as Senior Manager in Analytics and the job profile was to get real-time insights into user interactions and measure and analyze performance to drive customer engagement using Natural Language Processing.

Kandarp Singh
Assistant Professor, Art & Design
kandarp.singh@sharda.ac.in

Master of Fashion Technology with Specialization in Strategy, NIFT New Delhi and Bachelor of Fashion Technology, NIFT Gandhinagar, With Over 8+ years experience in Garment and Textile manufacturing Industry, have complete understanding of textile operations and management, with a focus on Lean manufacturing and TPM initiatives.

His Expertise include Apparel Production and Pattern Making, Functional Textiles, Textile Chemistry and New Textile Development, Design Innovation and Design Thinking , 3D Printing Technology, Functional Design Innovation and Textile Printing and Process

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School: SSDAP Program: B.Design & BVA	Academic Year: 2025-2026
Branch: Design	Semester: 3rd
Course Code	NV41001
Course Title	AI -Principles in Architecture & Design
Credits	
Contact Hours	30 hrs
Course Type	**NCVAC**
Course Objective	To introduce students from Design, Architecture, and Planning backgrounds to data literacy through non-coding, hands-on learning. This part helps learners understand how data is collected, cleaned, interpreted, and visualized — using intuitive tools to support design decisions and creative outputs.
Course Outcomes	After completion of this course, students will be able to: CO1: Understand different types of data used in design fields CO2: Collect and structure real-world datasets using no-code tools CO3: Clean and organize datasets visually without scripting CO4: Interpret data patterns through visualizations for design decision-making CO5: Create dashboards and storytelling outputs from structured data
Course Description	This course introduces students to the language of data without coding, helping them bridge the gap between design thinking and data literacy. Tailored for students in Fashion Design, Communication Design, Interior Design, Visual Arts, and Architecture, this part explores how design decisions are increasingly data-driven—from trend prediction to layout optimization and spatial analysis. Through intuitive, no-code tools like Google Sheets, Canva Graphs, Flourish, Tableau Public, and ChatGPT, students will learn how to collect, clean, visualize, and interpret data, making it a core component of their design workflows. The course emphasizes storytelling through data, allowing students to support their creative concepts with measurable insights and impactful dashboards. This part is essential for developing a data-aware design mindset, which is increasingly expected in both creative agencies and planning firms.

Outline syllabus		CO Mapping
Unit 1	**Data Foundations for Designers**	
A	Spreadsheets as data canvases, Common errors: missing values, typos, format issues Filtering, sorting	CO1
B	validating inputs using: Google Sheets, Excel, Use-case cleaning exercises per domain	CO1
C	Fashion: Product style cleanup, Architecture: Site measurement table Tools: Google Sheets, Excel, Visual Arts: Artworks dataset by genre	CO1
Unit 2	**Data Collection Methods**	CO2
A	What makes a good visual representation? Charts: Bar, Pie, Line, Scatter, Heatmap Design-led insights, Interior: Layout efficiency	
B	Communication: Message reach , Fashion: Color trend evolution Tools: Canva Graph Maker, Flourish, Tableau Public (no-code),	CO2
C	Hands-on: Create a small report with 2–3 visual charts	CO2
Unit 3	**Structuring and Cleaning Data Visually**	
A	Spreadsheets as data canvases, Common errors: missing values, typos, format issues Filtering, sorting	CO3
B	validating inputs using: Google Sheets, Excel, Use-case cleaning exercises per domain	CO3
C	Fashion: Product style cleanup, Architecture: Site measurement table Tools: Google Sheets, Excel, Visual Arts: Artworks dataset by genre	CO3
Unit 4	**Data Visualization for Creative Interpretation**	CO4
A	What makes a good visual representation?, Charts: Bar, Pie, Line, Scatter, Heatmap Design-led insights, Interior: Layout efficiency	
B	Communication: Message reach, Fashion: Color trend evolution	CO4
C	Tools: Canva Graph Maker, Flourish, Tableau Public (no-code), Hands-on: Create a small report with 2–3 visual charts	CO4
Unit 5	**Dashboards, Visual Summaries, and AI-Assisted Insights**	CO5
A	Combining visuals into dashboards, Narrative insights: Telling a story from your data	
B	Using AI to summarize insights (ChatGPT, Google Sheets AI), Presenting visuals in a design context	C06
C	Tools: ChatGPT, Google Sheets AI, Canva Dashboard Templates, Hands-on: Create a dashboard (PDF/poster) for any one domain project	CO6