

JADAVPUR UNIVERSITY
COMPUTER AIDED DESIGN CENTRE
Kolkata - 700 032

Certificate course on
DIGITAL GRAPHICS
(with Generative AI)

Digital Graphics is a dynamic field that blends creativity with technology, empowering designers to create stunning visuals, from traditional image-making to AI-generated content. With the rise of Generative AI, the industry is transforming, allowing designers to automate tasks, enhance creativity, and produce unique visual experiences faster than ever.

A Digital Graphics Specialist leverages both traditional design software and AI-powered tools to craft compelling visual concepts for branding, advertising, web design, and multimedia. Today's designers must integrate AI-assisted workflows, including AI-generated illustrations, intelligent typography, and automated design solutions, to stay ahead in the evolving industry.

Digital Graphics spans multiple specializations, from print and web design to motion graphics, social media content, and AI-enhanced creativity. This field offers endless opportunities for individuals interested in visual storytelling, branding, and innovative media creation.

The CAD Centre, Jadavpur University, is one of India's leading multimedia and animation institutes, located in the heart of Kolkata. It fosters an environment of creativity, innovation, and hands-on learning under the guidance of expert trainers who are certified and experienced in both traditional and AI-driven design techniques. The curriculum encourages students to integrate Generative AI with conventional design methods, ensuring they are well-equipped for the future of digital creativity.

Course Duration: 48 hrs. (3 days/week)

Class Duration: Theory Sessions: 2 hrs.; Practical Session: 2 hrs.

Eligibility: Higher Secondary (10+2) passed or equivalent. **Candidates appearing for the Higher Secondary examination are also eligible to apply for this course.**

Course Fees: Rs. 7,080 /- (18% GST included)

Topics	No. Of Theory Classes	No. Of Practical Classes	Total No. Of Classes
Concept of Graphic Design • Introduction to Design as a Problem-Solving Tool • Understanding design thinking • Visual communication and its role in problem-solving Elements of Design • Elements: Line, Shape, Color, Texture, Space, Form, Value Getting Started with Photoshop • Setting Up Photoshop • Interface overview • Setting up a workspace • Basic Tools • Selection tools (Marquee, Lasso, Magic Wand) • Layers and layer management • Introduction to masks and their use in non-destructive editing Practical: Creating a Business Card	1	1	2
Principles of Design • Principles: Balance, Contrast, Emphasis, Movement, Unity, etc. • How do these work together to create effective compositions? The Anatomy of Typography • Understanding terms: baseline, x-height, ascender, descender, serif, sans-serif, kerning, tracking, leading • Serif vs. sans-serif vs. display fonts • Font Pairing • Matching typefaces effectively for contrast and harmony • Creating visual hierarchy through size, weight, and spacing Organizing content for readability and impact	1	1	2
Color Theory & Schemes • Primary, secondary, tertiary colors • Color wheel and relationships (complementary, analogous, triadic, split-complementary etc.) • Warm vs. cool colors • Tint, tone, and shade Psychology of Color Brand Identity Design • Elements of brand identity (logo, imagery etc.)	1	1	2
Traditional & AI-Powered Image Editing • Layer Styles: Drop shadows, gradients, bevel & emboss, blending options • Composites: Combining multiple images seamlessly using masks and blend modes • Adjustment Layers: Curves, Levels, Hue/Saturation, Color Balance, Selective Color • Introduction to AI tools in design (e.g., Adobe Generative Fill, Firefly, Leonardo) • Using AI for background removal, object replacement, and image expansion	1	1	2

Enhancing creativity with AI prompts			
Traditional & AI Powered Color Correction Adjustment Layers: Curves, Levels, Hue/Saturation, Color Balance Color Matching: Using the Match Color tool to harmonize tones across images Selective Color Correction: Enhancing or muting specific tones - Introduction of Prompt Engineering, color grading using AI	1	1	2
Traditional & AI Filters in Photoshop - Overview of built-in Photoshop filters (Blur, Sharpen, Noise, Stylize, etc.) - Photoshop Neural Filters (e.g., Skin Smoothing, Depth Blur, Harmonization) - Adobe Firefly (style transfer & text-to-image)	1	1	2
Print & Social Media Design - Print Design - Social Media Design Essentials - AI for Social Media & Ads	1	1	2
Vector Graphics with Illustrator - Introduction to Vector Graphics - Getting Started with Illustrator - Working with Paths & Pen Tool - Grouping, Layers, and Transformations - AI Features in Illustrator	1	1	2
Customizing AI-Generated Art & Ethical Use - Greeting Card Design - Cartoon & Character Creation - Ethics of AI in Art & Design	1	1	2
Product & Package Design: Leveraging AI for Design & Prototyping - Traditional Product & Packaging Design - Leveraging AI for Product & Packaging Design	1	1	2
AI in Textile & Print Design - Introduction to Textile & Print Design - T-Shirt Design Using AI - Book Cover Illustration with AI	1	1	2
Building a Professional Design Portfolio	1	1	2
	12	12	24

Examination: *One theory test of 50 marks and one lab test of 50 marks at the end of the course.*