

**SKILL BASED COURSE**  
**SBC FAS 02: ADVANCED COMPUTER AIDED DESIGN**

**CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE**

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
SBC FAS 02: Advanced Computer Aided Design	2	0	0	2	Nil	Nil

**Learning Objectives**

- To gain proficiency in advanced CAD software for fashion design.
- To explore innovative and creative design possibilities
- To develop and create detailed garment specifications and digital patterns

**Learning Outcomes**

The students would be able to:

- Design intricate fashion sketches and patterns digitally.
- Translate design concepts into visualizations and technical drawings.
- Implement CAD and AI to execute design ideas

**PRACTICAL**  
**(Credits 2; Hours 60)**

**1. Drawing fundamentals in vector-based software**

- Overview of interface, tools, panels, workspace and shortcuts (CorelDraw/Inkscape/any other open-source application)
- Figure Proportion Exercise
- Fashion Croquis Creation
- Flat sketches of garments and accessories

**2. Digital Fashion Design**

- Vector Based Software (CorelDraw/Inkscape/any other open-source application)
  - Text and object manipulation
  - Types of motifs and motif development
  - Forms of motif- natural, stylised, abstract and geometric forms
  - Motif repeats and colourways
  - Theme based design collection
  - Tech Pack Creation

- Raster Based Software (Photoshop/ Photopea/ GIMP/ any other open source application)
  - Overview of interface, tools, panels, workspace and shortcuts
  - Moodboards and concept boards
  - Colour, Pattern and Textures
  - Colour modification, filters and blending options
  - Layer mask, clipping mask- text and shape
  - Garment rendering

### **3. New Ways of Designing Fashion**

This unit explores innovative approaches to fashion design, incorporating emerging technologies to depict creative ideas.

- Introduction to generative AI in Fashion Design
- AI for inspiration and trend forecasting
- AI assisted sketches and pattern generation (Deep dream generator, Re-Sleeve, Silk PLM, Outfit Anyone, AI image, etc.)
- Traditional and AI assisted design process: A critique

#### **Essentials Readings**

- Aspelund. K. (2014) Design Process, Fairchild - Bloomsbury Publication, 3rd Edition
- Duggal, (2000) V. A General Guide to Computer Aided Design and Drafting , Mailmax Publications, New York
- Grosicki, Z.J. (1989) Advanced Textile Design (4th Ed) - Watson's, London, Newness Butterworths

#### **Suggested Readings**

- Meller S and Eiffer. J (1991) Textile Design, London, Thames and Hudson
- Roojen PV (2002) Art Nouveau Designs, The Pepin Press- Agile Rabbit Editions, Singapore
- Wilson Eva (1994) 8000 Years of Ornament, London, the British Museum Press
- Web tutorials of vector and raster based softwares
- Web tutorials of AI based applications

**Note: Examination scheme and mode shall be as prescribed by the Examination branch, University of Delhi, from time to time**