Course Title: Practical Course in Digital Visualization & Animation

Course duration : 6 weeks

Course Objective:

To introduce the fundamentals of **digital animation** and **visualization**, enabling them to effectively use industry-standard tools to create visual content for communication, media, marketing, and entertainment.

Learning Outcomes:

- Proficiency in **creating digital animations** and **motion graphics**.
- Understanding of **visual storytelling** techniques in the context of digital media.
- Ability to create and manage a **digital portfolio** showcasing personal animation projects.
- Basic knowledge of **3D animation** and **sound synchronization** for multimedia projects.

Target Audience:

- This course is designed for **students** from fields such as **media, communications, marketing, design, arts,** and **business** who are interested in learning digital animation for creative expression, content creation, and media production.

Module 1: Introduction to Animation & Visualization (Theory + Practical)

- **Overview of Animation & Visualization:**
    - Importance of digital media in communication and design.
    - Applications of animation in **advertising**, **entertainment**, **education**, and **digital arts**.
- **Tools Overview:**
    - Introduction to basic animation tools: **Adobe After Effects**, **Blender**, **Toon Boom Harmony**.
    - Getting familiar with graphic tablets for digital drawing.

    Practical Exercise:

- **Basic Animation Creation:** Create a simple 2D animation using **Toon Boom Harmony** or **Blender**.

Module 2: Digital Drawing and Animation Techniques (Practical)

- **Basic Animation Principles:**

- o Learn the **12 principles of animation**: timing, exaggeration, squash & stretch, etc.
- o Basic frame-by-frame animation vs. **motion graphics**.
- **Using Graphic Tablets:**
  - o Introduction to **digital sketching** and **character design**.
  - o Hands-on exercises in creating digital drawings and animations.

Practical Exercise:

- **Create a Simple Animated Character:** Design a character and animate simple movements like walking or jumping.

Module 3: Motion Graphics and Storytelling (Practical + Theory)

- **Understanding Motion Graphics:**
  - o Introduction to creating dynamic **text animation**, **infographics**, and **title sequences** using **Adobe After Effects**.
- **Storytelling through Animation:**
  - o Basic principles of **visual storytelling**.
  - o How to use animation to communicate ideas and emotions.

Practical Exercise:

- **Create an Animated Explainer Video:** Use motion graphics to explain a simple concept or product.

Module 4: Sound & Visual Synchronization (Practical)

- **Understanding Sound in Animation:**
  - o Basics of sound effects, voiceovers, and background music in animation.
- **Syncing Sound with Animation:**
  - o How to sync sound with animation for a seamless experience.
  - o **Audio editing tools** and techniques.

Practical Exercise:

- **Create a Short Animated Scene with Sound:** Animate a short sequence and sync it with appropriate sound effects and background music.

Module 5: Introduction to 3D Animation (Theory + Practical)

- **Basics of 3D Animation:**
  - o Introduction to **3D modeling** and **rigging**.
  - o Use of **Blender** for creating simple 3D objects and animating them.
- **The 3D Animation Pipeline:**

- o   Overview of the **3D animation process**, from modeling to rendering.

Practical Exercise:

- **Create a 3D Object & Animate It:** Design a simple 3D object (e.g., a ball) and animate its movement.

Module 6: Digital Portfolio & Presentation Skills (Practical)

- **Creating a Digital Portfolio:**
  - o   How to showcase animation work and digital art in a professional portfolio.
- **Presentation Skills:**
  - o   How to effectively present your animation work to an audience or potential clients.

Practical Exercise:

- **Build a Digital Portfolio:** Curate your best animations and designs to create a digital portfolio using **Adobe XD** or **Behance**.

Final Project: Animation & Visualization Showcase

- **Final Animation Project:**
  - o   Students will create a final project where they combine animation, sound, and digital visualization techniques learned throughout the course. The project should demonstrate creativity, technical skills, and storytelling.
- **Presentation of Work:**
  - o   Students will present their final project in a professional format, explaining their creative process, design choices, and animation techniques.