



## Product Design & Development Courses by IFS Academy

### Training Internship Certification in Product Design and Innovation (TIC-PDI)

*(Modular Program)*

### Advanced Certification in Product Design and Innovation (AC-PDI)

*(Career Program with 100% Placement Assistance)*

## Course Outline & Curriculum

### Modular Program Course Details

**Course Name:** Training Internship Certification in Product Design and Innovation (TIC-PDI)

**Duration:** 8 Weeks

**Course Start Date:** January 4, 2025

**Schedule:** Every Saturday and Sunday, 9:00 AM - 12:00 PM

### Outline and Curriculum:

- **Week 1:** Introduction to Product Design
  - Overview of Product Design
    - Definition and importance of product design
    - Key phases in the design process
  - Case Studies
    - Examination of successful products and their design journeys
- **Week 2:** Design Process through User-Centered Research
  - Design Process
    - Empathy, ideation, and prototyping
  - User Research Techniques
    - Creating user personas and conducting interviews
  - Assignment: Empathy mapping and ideation exercises
- **Week 3:** Ideation Exercise
  - Concept Development
    - Brainstorming and ideation
  - Aesthetics and Functionality
    - Importance of visual design and usability



- Assignment: Sketching initial product ideas
- **Week 4: Engineering Principles and Materials**
  - Materials and Manufacturing Process Overview
    - Understanding materials and manufacturing processes
  - Prototyping Techniques
    - Introduction to different prototyping methods
  - Assignment: Hands-on prototyping with basic materials
- **Week 5: Prototyping and Testing**
  - Rapid Prototyping Methods
    - Overview of tools and technologies (e.g., 3D printing, CAD)
  - User Testing and Feedback
    - Methods for testing prototypes and gathering user insights
  - Assignment: Create and test a prototype based on user feedback
- **Week 6: Business Fundamentals for Designers**
  - Entrepreneurial Mindset
    - Basics of launching a product
  - Developing a Business Model
    - Understanding product value propositions and market analysis
  - Assignment: Create a simple business plan for your design idea
- **Week 7: Product Integration**
  - Capstone Project Development
    - Time to finalize and refine your product concept
  - Product Presentation
    - Techniques for effective storytelling and pitching
  - Assignment: Prepare ideas for demonstration
- **Week 8: Final Project Presentation**
  - Showcase your project to peers and receive feedback



**Course Name:** Advanced Certification in Product Design and Innovation (AC-PDI)

**Duration:** 6 Months

**Course Start Date:** January 2025

**Schedule:** Every Saturday and Sunday, 9:00 AM - 12:00 PM

**Outline and Curriculum:**

1. **Weeks 1-2:** Introduction to Product Design
  - Overview of product design principles
  - The design process: stages and methodologies
  - Roles in product design (designer, engineer, marketer)
2. **Weeks 3-4:** Design Process through User-Centered Research
  - Principles of design thinking
  - Empathy and user research techniques
  - Creating user personas and scenarios
3. **Weeks 5-6:** Ideation and Concept Development
  - Brainstorming techniques and creativity exercises
  - Importance of aesthetics and functionality
  - Sketching and visualizing ideas
4. **Weeks 7-8:** Engineering Principles and Material Selection
  - Basic engineering concepts relevant to product design
  - Material properties and selection
  - Introduction to manufacturing processes
5. **Weeks 9-10:** Prototyping Techniques
  - Overview of prototyping methods (low-fidelity to high-fidelity)
  - Tools for prototyping (CAD, 3D printing, etc.)
  - Iterative design and testing processes
6. **Weeks 11-12:** User Testing and Iteration
  - Techniques for user testing and gathering feedback
  - Analyzing user feedback to inform design decisions
  - Iteration and refinement processes
7. **Weeks 13-14:** Business Strategies for Designers
  - Basics of entrepreneurship and business models
  - Creating a value proposition
8. **Weeks 15:** Packaging Design



- Introduction to market trends
  - Understanding branding and identity
  - Market Placement Basics
9. **Weeks 16-17:** Advanced Prototyping and User Experience (UX) Design
- Advanced prototyping methods (interactive prototypes)
  - Principles of UX design
  - Usability and accessibility considerations
10. **Weeks 18:** Intellectual Property and Ethics
- Understanding intellectual property rights
  - Ethical considerations in product design
11. **Weeks 19-21:** Capstone Project Development
- Integrating learning from the course into a comprehensive project
  - Time management and project planning
12. **Weeks 22-24:** Final Project Refinement
- Finalizing prototypes and presentations
  - Effective storytelling in presentations
13. **Weeks 25-26:** Final Presentations and Course Wrap-Up
- Presentation of final projects to a panel of experts
  - Course evaluation and feedback sessions