

3 months
Entirely online learning
6-8 hours/week

Our pedagogical approach, designed to bring concepts to life, includes:
128 video lectures, 3 Live Teaching Sessions, 3 Group Projects, 10 Assignments,
1 Capstone Project, 7 Real World Applications

To further personalize the program modules, live teaching sessions are scheduled during the program term, often with Q&A. For participants who are unable to attend these sessions live, a recording is made available so nothing is missed. Our industry-leading learning platform allows participants to create a profile, connect and collaborate with peers, and interact with academic/industry experts such as program leaders, coaches, and teaching assistants. Assignments are often linked to participant's real-world situations, making these concepts inherently practical.

Orientation Module: Welcome to your Online Campus

Module 1: Design Thinking Skills

Skills expected of design thinking practitioners
Innovation challenges, Real-Win-Worth framework
Altitude case study – innovation processes, leadership, and overall culture

Module 2: Identifying Customer Needs

Product development process and concept development phase in design
planning and analysis
Customer needs and markets
Types of product users
Customer needs analysis

Module 3: Product Specifications

Translating customer needs into measurable specifications
Benchmarking needs vs. specifications
Dynamics of product specifications
Quality function deployment (house of quality)

Module 4: Applied Creativity

Problem decomposition techniques and solution concepts
Brainstorming principles and their efficacy in creative thinking
System exploration and concept/down-selection

Module 5: Prototyping

Prototyping and its relevance in the concept development phase
Types of prototyping Prototyping strategy
Rapid prototyping and virtual prototyping Prototyping examples

Module 6: Design for Services

Service development process
Service cycle experience map
Product vs. service systems
Service innovation examples

Module 7: Product Architecture

Types of product architecture: integral and modular
Examples of integral and modular architectures
Implications of product architecture on the design process

Module 8: Financial Analysis

Product development economics
Project financial modeling
Calculating Net Present Value (NPV) and its influence over product decision making
Cash flow analysis

Module 9: Design for Environment

DFE principles and decision making
How DFE integrates with the product development process
Product life cycle and environmental impacts
Herman Miller story

Module 10: Product Development Processes

Systematic innovation process: Altitude case study
Types of development processes – staged, spiral, and agile methodologies