DSGN 260 : PRODUCT DESIGN STUDIO II

Transcript title

3D Printing: Product Dev

Credits

4

Grading mode

Standard letter grades

Total contact hours

80

Other hours

80

Course Description

Focuses on the complete process of developing 3D printed products, from concept to prototype. Emphasizes design thinking, iterative methodologies, and the integration of aesthetics and functionality. Builds skills to create market-ready designs for 3D printing through online design tools. Repeatable for credit.

Course learning outcomes

 Apply design thinking methodology to identify and solve product development challenges unique to 3D printing technologies.
Develop and refine product prototypes through iterative testing, incorporating user feedback and technical constraints.
Create products that integrate aesthetic principles with functional requirements while optimizing for 3D printing capabilities.
Evaluate successful development strategies and design decisions based on sustainability principles, real-world 3D printed product case studies, market requirements, or manufacturing efficiency.
Present refined product concepts through professional documentation, including technical specifications, renderings, and prototype demonstrations.

Content outline

- 1. Introduction to Product Development for 3D Printing
- 2. Design Thinking and Problem-Solving
- 3. Prototyping and Refinement
- 4. Aesthetic and Functional Design Integration
- 5. Sustainability and Market Considerations
- 6. Communicating Design Ideas
- 7. Case Studies in 3D Printed Product Development

Required materials

Students will need access to a computer capable of running industrystandard CAD software.

General education/Related instruction lists

Arts and Letters