#### **GID 1A: DESIGN THINKING**

#### **Foothill College Course Outline of Record**

Heading	Value
Effective Term:	Summer 2025
Units:	4
Hours:	3 lecture, 3 laboratory per week (72 total per quarter)
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU/UC
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

#### **Student Learning Outcomes**

- A successful student knows how to approach innovation challenges from a human-centered perspective. They uncover the importance of approaching innovation projects with a prototyping mind set, where iterations, trial and error, and even failure are all part of a valuable, creative learning process while acknowledging that a multidisciplinary approach to innovation is a powerful way to incorporate many perspectives.
- A successful student will demonstrate how to approach design challenges with a prototyping mind set, where iterations, trial and error, and even failure are all part of a valuable, creative learning process while acknowledging that a multidisciplinary approach to innovation is a powerful way to incorporate many perspectives.

#### **Description**

Introduction to design thinking as a process for creative problem solving. Design thinking includes empathy, ideation, and experimentation: empathy is essential to understanding the needs of those being designed for; ideation enables designers to generate a lot of ideas through brainstorming; experimentation tests those ideas with prototyping.

## **Course Objectives**

The student will be able to:

- Understand and apply methodology that attempts to deeply understand and consider people directly impacted by whatever is being designed, in addition to complex historical, social, and environmental context.
- Identify underlying problems and collect and analyze qualitative data to deeply understand needs and contexts.
- Experience opportunities to apply learnings to real-world context and to gain a deeper understanding of the design thinking methodology.
- 4. Create designs that effectively visually communicate design objectives and for a culturally-diverse global marketplace.
- Design thoughtful co-creation processes with users and develop an iterative process.

#### **Course Content**

- 1. Overview of the design thinking process
  - a. Principles of design thinking
  - b. Approach to complex issues
  - c. Mindset of design thinking
- 2. Synthesis
  - a. Analyze qualitative data
  - b. Understand deeply complex problems
  - c. Uncover latent human needs
- 3. Ethnography and empathy
  - a. User-centered methodology
  - b. Human-centered framework
  - c. Informational interviews
- 4. Prototype
  - a. Brainstorm strategy
  - b. Diagramming
  - c. Storyboarding
  - d. Rapid prototyping
  - e. User testing
- 5. Iterating
  - a. Feedback on prototypes and mock-ups
  - Modifications based on insights from feedback on prototypes and mock-ups

#### **Lab Content**

- 1. Observation
- 2. Interviews
- 3. Brainstorming
- 4. Diagramming
- 5. Storyboarding
- 6. Rapid prototyping
- 7. User testing
- 8. Design specification

#### **Special Facilities and/or Equipment**

- 1. A lecture room equipped with an instructional computer, highresolution color monitor, projection system, software, and network connectivity. Lighting suitable for projected images.
- 2. An integrated or separate facility with student workstation configurations to include hard drives; color monitors; mice; keyboards; software, and network connectivity.
- 3. When taught via Foothill Global Access: on-going access to computer with JavaScript-enabled internet browsing software, media plug-ins, and relevant computer applications.

#### **Method(s) of Evaluation**

Methods of Evaluation may include but are not limited to the following:

Presented research findings Completed student projects Group discussion Final portfolio review

### Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lectures on conceptual concepts and applications of design thinking Discussion of projects and representative techniques Group discussions that address the creative problem solving process Demonstration of design thinking techniques

# Representative Text(s) and Other Materials

Lewrick, Michael. <u>The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems</u>. 2018.

Although this text is older than the suggested "5 years or newer" standard, it remains a seminal text in this area of study.

# Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- 1. Example of required reading assignment: Lesson 5 read pages 1-15 and 52-53 in textbook.
- 2. Example of required writing assignment: Lesson 5 write 200-300 words explaining how empathy is used in design thinking.
- 3. Example of outside of class assignment: Student will conduct a design thinking interview.

#### Discipline(s)

**Graphic Arts**