

# MAKR M903: INTRODUCTION TO DESIGN THINKING

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**Originator**

csadnik

**College**

Moorpark College

**Discipline (CB01A)**

MAKR - MakerSpace

**Course Number (CB01B)**

M903

**Course Title (CB02)**

Introduction to Design Thinking

**Banner/Short Title**

Intro to Design Thinking

**Credit Type**

Noncredit

**Start Term**

Fall 2021

**Catalog Course Description**

Introduces students to the design thinking process. Includes problem solving methodology, evaluation, and critical thinking that allows students to arrive at solutions that challenge preconceived ideas. Facilitates a maker focused, hands-on approach to understanding and applying the design thinking process.

**Taxonomy of Programs (TOP) Code (CB03)**

1030.00 - \*Graphic Art and Design

**Course Credit Status (CB04)**

N (Noncredit)

**Course Transfer Status (CB05) (select one only)**

C (Not transferable)

**Course Basic Skills Status (CB08)**

N - The Course is Not a Basic Skills Course

**SAM Priority Code (CB09)**

D - Possibly Occupational

**Course Cooperative Work Experience Education Status (CB10)**

N - Is Not Part of a Cooperative Work Experience Education Program

**Course Classification Status (CB11)**

J - Workforce Preparation Enhanced Funding

**Educational Assistance Class Instruction (Approved Special Class) (CB13)**

N - The Course is Not an Approved Special Class

**Course Prior to Transfer Level (CB21)**

Y - Not Applicable

**Course Noncredit Category (CB22)**

I - Short-Term Vocational

**Funding Agency Category (CB23)**

A - Primarily Developed Using Economic Development Funds

**Course Program Status (CB24)**

1 - Program Applicable

**General Education Status (CB25)**

Y - Not Applicable

**Support Course Status (CB26)**

N - Course is not a support course

**Field trips**

Will not be required

**Grading method**

(P) Pass/No Pass Grading

**Does this course require an instructional materials fee?**

No

**Repeatable for Credit**

Yes

**Number of times a student may enroll in this course**

Unlimited

**Units and Hours**

**Carnegie Unit Override**

No

**Total in-Class (full semester or term)**

**Total Minimum Contact/In-Class Hours (for full semester or term; not weekly)**

8

**Total Maximum Contact/In-Class Hours (for full semester or term; not weekly)**

8

**Total Student Learning**

**Total Student Learning**

**Total Minimum Student Learning Hours**

8

**Total Maximum Student Learning Hours**

8

**Student Learning Outcomes (CSLOs)**

**Upon satisfactory completion of the course, students will be able to:**

- |   |  |
|---|--|
| 1 | recognize and explain the stages of design thinking.   |
| 2 | demonstrate an understanding of the design thinking process through its application to problems. |
| 3 | demonstrate the iterative nature of design thinking.   |

**Course Objectives**

**Upon satisfactory completion of the course, students will be able to:**

- |   |  |
|---|--|
| 1 | recognize the stages of the design thinking process. |
| 2 | explain the stages of the design thinking process.   |

- |   |  |
|---|--|
| 3 | apply design thinking to problem solving.                |
| 4 | construct a solution to a problem using design thinking. |
| 5 | demonstrate the iterative process of design thinking.    |

## Course Content

### Lecture/Course Content

1. **(15%) Introduction to Design Thinking**
  - a. what is a design thinking?
  - b. how does design thinking aid in arriving at solutions that challenge preconceived idea
2. **(60%) Design Thinking Stages and Application**
  - a. stages of design thinking
  - b. how design thinking can apply to a multitude of disciplines
  - c. design thinking problem solving applications
3. **(25%) Iterative Nature of Design Thinking**
  - a. refining solutions through iteration
  - b. using MakerSpace equipment to demonstrate solutions

## Methods of Evaluation

**Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):**

Problem solving exercises  
Written expression

**Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):**

Group projects  
Individual projects  
Journals  
Oral analysis/critiques  
Oral presentations  
Problem-solving homework  
Quizzes

## Instructional Methodology

**Specify the methods of instruction that may be employed in this course**

Audio-visual presentations  
Collaborative group work  
Class activities  
Class discussions  
Case studies  
Distance Education  
Group discussions  
Lecture  
Problem-solving examples  
Readings

**Describe specific examples of the methods the instructor will use:**

1. The instructor will present the concept of design thinking, show examples of how design thinking has been used in our culture to find innovative solution, and guide the class in a discussion.
2. The instructor will guide students through a group project where students will use design thinking to arrive at a solution to a problem of their choosing.

## Representative Course Assignments

### Writing Assignments

1. Write a reflection on how the design thinking process was applied in several presented case studies.
2. Brainstorm and mind map each phase of the design thinking process for a problem chosen by the student.

### Critical Thinking Assignments

1. Apply the design thinking process to a problem chosen by the student.
2. Refine a solution they arrived at through iteration.

### Reading Assignments

1. Read an excerpt from "Change by Design" and discuss in small groups.
2. Read an excerpt from "Creative Confidence" and discuss in small groups.

## Outside Assignments

### Textbooks and Lab Manuals

#### Resource Type

Other Instructional Materials

#### Description

Kelley, Tom and David Kelley. *Creative Confidence#: Unleashing the Creative Potential Within Us All*. Currency, 2013.

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#### Resource Type

Other Instructional Materials

#### Description

Hanks, Kurt, and Larry Belliston. *Rapid Viz: A New Method for the Rapid Visualization of Ideas*. 3rd ed., Cengage Learning, 2006.

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#### Resource Type

Other Instructional Materials

#### Description

Instructor-generated Introduction to Design Thinking packet containing worksheets, guided exercised, and keys terms.

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#### Resource Type

Other Instructional Materials

#### Description

Brown, Tim. *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation*. Revised ed., Harper Business, 2019.

## Library Resources

### Assignments requiring library resources

Research using the Library's print and online resources.

### Example of Assignments Requiring Library Resources

Utilize Library resources to research the role of design thinking within culture.

## Distance Education Addendum

### Definitions

#### Distance Education Modalities

Hybrid (1%–50% online)

## Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

## Regular Effective/Substantive Contact

Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Regular Asynchronous discussion boards will be used to encourage discussion among students where they can compare and contrast/ discuss /identify and analyze elements of course outcomes. Other discussion boards will also be used for Q&A, and general class discussion by students and the instructor to facilitate student learning outcomes.
E-mail	Email, class announcements and tools such as “Message Students Who” and “Assignment Comments” in Canvas will be used to regularly communicate with all students to clarify class content, remind of upcoming assignments, and provide immediate feedback to students on coursework to facilitate student learning outcomes. Students will be given multiple ways to email instructor through Canvas inbox and faculty provided email account through their own canvas email and school email.
Synchronous Dialog (e.g., online chat)	Communication, Online office hours, Online group discussions.
Synchronous Dialog (e.g., online chat)	Recorded lectures, Narrated Slides, Screencasts, Instructor created content, Discussions, 3rd Party (Publisher) Tools, Websites and Blogs, Multimedia (YouTube, Films on Demand, 3CMedia, Khan Academy, etc.)

## Examinations

Hybrid (1%–50% online) Modality

Online

## Primary Minimum Qualification

GRAPHIC ARTS

## Review and Approval Dates

Department Chair

MM/DD/YYYY

Dean

MM/DD/YYYY

Technical Review

03/18/2021

Curriculum Committee

4/6/2021

**DTRW-I**

04/08/2021

**Curriculum Committee**

MM/DD/YYYY

**Board**

05/11/2021

**CCCCO**

MM/DD/YYYY

**DOE/accreditation approval date**

MM/DD/YYYY