

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

**COURSE NUMBER – COURSE NAME
GMMD 337 – Design Thinking**

Created by: Christopher Sweeney

Updated by: Christopher Sweeney

Canino School of Engineering Technology

Department: Decision and Graphic Media Systems

Semester/Year: Fall 2018

- A. **TITLE:** Design Thinking
- B. **COURSE NUMBER:** GMMD 337
- C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 3
Lecture Hours: 3 per week
Lab Hours: per week
 Other: per week

Course Length: 15 Weeks

- D. **WRITING INTENSIVE COURSE:** Yes No

- E. **GER CATEGORY:** None: Yes: GER
If course satisfies more than one: GER

- F. **SEMESTER(S) OFFERED:** Fall Spring Fall & Spring

- G. **COURSE DESCRIPTION:**

This course develops innovative thinking skills related to “wicked” human-oriented problems. Students examine cases and propose resolutions following the five-stage design thinking process of Empathy, Define, Ideate, Prototype, and Test. Cases involve the development and implementation of new products, processes, and services.

- H. **PRE-REQUISITES:** None Yes If yes, list below:

Pre-requisite(s): ENGL 101 and GER 1 Math

CO-REQUISITES: None Yes If yes, list below:

I. STUDENT LEARNING OUTCOMES: (see key below)

By the end of this course, the student will be able to:

<u>Course Student Learning Outcome</u> <u>[SLO]</u>	<u>Program Student Learning Outcome</u> <u>[PSLO]</u>	<u>GER</u> <i>[If Applicable]</i>	<u>ISLO & SUBSETS</u>	
Discuss the role of design thinking in contemporary practice	Design Process		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Identify the 5-stage design thinking process	Design Process		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Apply the 5-stage design thinking process to new products	Design Process		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Apply the 5-stage design thinking process to new services and processes	Design Process		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Demonstrate visual literacy and articulatory to explain design decisions	Interpretation		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
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KEY	<u>Institutional Student Learning Outcomes [ISLO 1 – 5]</u>
ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA] , Inquiry & Analysis [IA] , Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit./Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

*Include program objectives if applicable. Please consult with Program Coordinator

J. **APPLIED LEARNING COMPONENT:** Yes No

If YES, select one or more of the following categories:

- | | |
|--|---|
| <input type="checkbox"/> Classroom/Lab | <input type="checkbox"/> Civic Engagement |
| <input type="checkbox"/> Internship | <input checked="" type="checkbox"/> Creative Works/Senior Project |
| <input type="checkbox"/> Clinical Placement | <input type="checkbox"/> Research |
| <input type="checkbox"/> Practicum | <input type="checkbox"/> Entrepreneurship |
| <input checked="" type="checkbox"/> Service Learning | (program, class, project) |
| <input type="checkbox"/> Community Service | |

K. **TEXTS:**

Neck, H. & Neck, C., & Murray, E. (2016). Entrepreneurship: The Practice and Mindset. New York, NY: Sage.

L. **REFERENCES:**

Brown, T. & Schroeder, R. (2009). Change by Design. New York: Harper Collins.

M. **EQUIPMENT:** None Needed: technology enhanced classroom

N. **GRADING METHOD:** A-F

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

Exams
Quizzes
Discussion Boards
Papers
Projects

P. **DETAILED COURSE OUTLINE:**

- I. Entrepreneurship
 - A. Global Perspectives
 - B. Practices
 - C. Developing Mindset
- D. Social Entrepreneurship
- II. Opportunities
 - A. Generating New Ideas
 - B. Using Design Thinking
 - C. Testing and Experimenting
- III. Design Thinking Tools
 - A. Empathy
 - B. Define
 - C. Ideate
 - D. Prototype

- E. Test**
- IV Evaluating Opportunities**
 - A. Building Business Models**
 - B. Planning**
 - C. Creating Revenue Models**
 - D. Learning from Failure**
- V. Case Studies**

Q. LABORATORY OUTLINE: None Yes