

# Introduction to Learning Technology

## \*\*\*Tentative Plan\*\*\*

2022 Fall Semester

**Tuesdays 10:10-12:00 & Thursdays 10:10-12:00**

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<b>Unit:</b> Dept. of Education and Learning Technology (Required course 3 credit hours)	<b>Office:</b> Nanda campus N705 (Tel: 03-5715131 ext. 73042)
<b>Classroom:</b> Nanda Campus N202/Virtual classroom	<b>Instructor:</b> Dr. Chun-Min (Arthur) Wang
<b>Office hours:</b> Tuesdays 14-16 pm or by appointment	<b>Email:</b> chunmin@mx.nthu.edu.tw

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### Course Description:

The goals of this course are to explore the history of integrating technology into education, understand the theories behind each application, and get hands-on experience in the design and development of digital learning materials. Through lectures, group discussion, in-class activities, and online collaboration, students are expected to not only learn about learning technology and its applications but also investigate related issues and challenges. Additionally, to put theory into practice, students will also develop mini-lesson by applying various software, as well as solve real problems by adopting the design thinking approach.

### Course Objectives:

1. Understand the development of learning technology and explore its future directions.
2. Realize the related issues of learning technology and have a clear understanding of these issues.
3. Understand the applications of learning theories when integrating technology into education.
4. Understand the challenges of learning technology.
5. Design and develop digital learning materials for a target audience.
6. Solve real problems by applying learning technology.

### Course Activities :

Lectures, group collaboration, team presentation, discussion, workshops, synchronous and asynchronous online learning.

**Schedule: (Yellow background means face to face class).**

Week	Date	Topic	Note	Hours
1	09.13	Introduction of Learning Technology		+1
	09.15		Grouping	
2	09.20	Reflection on Learning Technology		+2
	09.22			

3	09.27	No class		0
	09.29			
4	10.04	Learning Principles		+1
	10.06		* self-intro video due	
5	10.11	Instructional Design		+2
	10.13			
6	10.18	No class		0
	10.20			
7	10.25	Flipped Classroom & Mini-lesson		+1
	10.27		* Mini-lesson topic confirm	
8	11.01	Design Thinking		+2
	11.03			
9	11.08	No Class		0
	11.10			
10	11.15	Computational Thinking	* Design thinking topic confirm	+1
	11.17			
11	11.22	Online Learning Mini-lesson presentation		+2
	11.24		*Assignment 1 due	
12	11.29	No Class		0
	12.01			
13	12.06	Mobile Learning		+1
	12.08			
14	12.13	Mateverse		+2
	12.15		* Assignment 2 due	
15	12.20	No class		0
	12.22			
16	12.27	Digital Divide		+1
	12.29			
17	01.03	Final Presentation & Reflection		+2
	01.05		*Assignment 3 Due	
18	01.10			0
	01.12			

### Evaluation :

1. Participation and in-class performance: 20 %

Attendance rate, in-class assignments, and activity participation.

2. Assignment 1: Mini-lesson (group project) (30%)

Form a group of 3 or 4. Design and develop a 10-minute video to teach a self-selected topic. The topic needs to be related to learning technology or education in general. The content needs to include parts of motivation initiation, the introduction of core knowledge, design of learner interaction, exploration of related applications and future directions, and assessment of the learning results.

3. Assignment 2: PST project (group project): 20%

Apply the framework of Pedagogy-Space-Technology to establish a learning space (real spot on NTHU campus). The report needs to include a 3D blueprint and demonstration of technology integration with a particulate pedagogy in this learning space. An automatically play Pecha-Kucha 20\*20 presentation format will be applied in the report.

4. **Assignment 3: Design thinking project (group project) 30%**

Select one education-related topic/product/solution that could be improved. Each group needs to follow the design thinking procedure, record the whole process, design and develop the prototype, and report the results of testing. The project will be evaluated by individual reflection, social responsibility, and innovation. The final presentation should include a 3-minute video, 10-minute oral report, and a Microsoft Word document report (max 10 pages). Grading will be done by the instructor and the peers.

Reference:

Related learning materials will be provided in class.

\* If there is any special need, please inform the instructor.