

## A Lesson Plan Template

Your Name: Xuan Wei

Your Role (GTA, adjunct, guest speaker, etc): Instructor

Course Name and Number: MIS 507 Software Design and Integration

Topic/Lesson: Design Patterns

Date, Time & Location: Oct. 17, 2019, 3:30pm – 4:45 pm, McClelland Hall 133

Number of Students: 48

Materials Needed (room equipment, materials for activities, etc.):

1. Computer and projector for lecturing
2. Pencil and paper for group discussions

Instructional Objectives (learning behavior + content + means/strategies)

1. Understand the motivation and the conceptual ideas behind the strategy pattern.
2. Know how to use UML to represent a strategy pattern-based design
3. Know how to implement a strategy pattern

### Lesson Plan

Time	Agenda	Instructional Objective(s)	Instructor - What I Will Do	Students - What They Will Do
5 mins	Review	N/A	Briefly review previous learned design patterns	Listen, take notes, raise questions, and give comments
10 mins	Motivating examples	1	<ol style="list-style-type: none"><li>1. Give a motivating example</li><li>2. Group discussion</li></ol>	<ol style="list-style-type: none"><li>1. Listen</li><li>2. Discuss the challenges in group</li></ol>

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5 mins	Traditional	1	Ask the students to think about the traditional approach	Think about the traditional approach and the drawbacks
15 mins	Strategy pattern	1	Introduce strategy pattern	Listen, take notes, raise questions, and give comments
10 mins	UML	2	Use an example to illustrate how to use UML to draw strategy pattern	1. Draw strategy pattern 2. Discussion
3 mins	UML	2	Introduce the best draw	Listen
12 mins	How to implement	3	Showcase the strategy pattern implementation	Listen, take notes, raise questions, and give comments
15 mins	Practice	1, 3	Hand-on practice	Given a question, students are asked to work out their solutions.

**Please articulate how this lesson is reflective of evidence-based practices.**

1. Students have lots of opportunities to participate in class activities → active learning
2. Students are asked to work on some question in group → collaborative learning
3. Hand-on practice → retrieval practice