#### **COMP2021**

# **Object-Oriented Programming**

Dr. Max Yu PEI

## **Teaching Team**

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### **Timetable**

Component Code	Day	Start Time	End Time
LAB001	Fri	10:30	11:20
LAB002	Tue	09:30	10:20
LAB003	Mon	17:30	18:20
LAB004	Wed	09:30	10:20
LEC001	Mon	12:30	15:20

All labs start from the 2<sup>nd</sup> week (Sept. 14)

# **Learning Outcome**

- Upon completion of this course, you will be able to
  - > Professional/Academic knowledge and skills
    - (a) Use an object-oriented programming language to solve computer problems
    - (b) Use an object-oriented programming language to build computer systems
  - > Attributes for all-roundedness
    - (c) Build computer systems in groups and develop group work
    - (d) Cooperate with team members in problem solving

#### **Assessment**

Coursework

100%

> Assignments

30% = 7% \* 2 + 8% \* 2

Project

35%

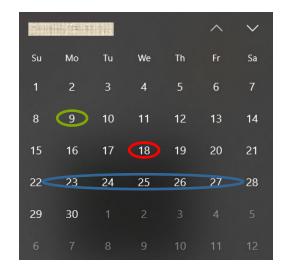
> Quiz

35%

#### **Policies**

Plagiarism cases will be strictly handled according to the university's regulation!

- There will be four assignments in the semester
  - Assignments will be announced on Mondays and should be handed in <u>on Blackboard</u> (https://learn.polyu.edu.hk/) in 9 days, i.e., before next Wednesday noons
  - Solutions will be discussed during the lab sessions in the following weeks
  - ▶ Late hand-ins will lead to deducted points: points = points before deduction \* (1 – 0.25 \* D), where D is the number of days delayed (rounded up).
- Late hand-ins for the team project are handled in the same way as late assignment hand-ins.



#### **Tentative Schedule – Lecture**

Week	Date	Topic		
1	Sep. 7	Introduction to Object-Oriented Programming and Java		
2	Sep. 14	Java Basics		
3	Sep. 21	Object-Based Programming: Classes and Objects (I)		
4	Sep. 28	Object-Based Programming: Classes and Objects (II)		
5	Oct. 5	Object-Based Programming: Classes and Objects (III)		
6	Oct. 12	Object-Oriented Programming: Inheritance (I)		
7	Oct. 19	Object-Oriented Programming: Inheritance (II) and UML		
8	Oct. 26	(No Class) The day following Chung Yeung Festival		
9	Nov. 2	Exception Handling and Generics		
10	Nov. 9	Concurrency		
11	Nov. 16	Swing and Event-Driven Programming		
12	Nov. 23	Design Patterns		
13	Nov. 30	Project—Peer Review of Design		

Lab sessions in Week 13 will be devoted to project presentations.

#### **Reference Books**

- Core Java Volume I—Fundamentals. Cay S. Horstmann. Prentice Hall; 11<sup>th</sup> edition (August 27, 2018)
- ❖ Head First Java. Sierra, Bates. O'Reilly Media; 2<sup>nd</sup> edition (February 19, 2005)
- ❖ Effective Java. Joshua Bloch. Addison-Wesley; 2<sup>nd</sup> edition (May 28, 2008)
- ❖ Java Concurrency in Practice. Brian Goetz, Tim Peierls, Joshua Bloch, Joseph Bowbeer, David Holmes, Doug Lea. Addison-Wesley Professional; 1<sup>st</sup> edition (May 19, 2006)

### What's Expected from You

- Participation
  - > Lectures, lab sessions, and discussions
- Practice
  - > Assignments and project
  - > Online Judges: leetcode, spoj, hackerrank, ...
  - > Open source software projects
- Performance
  - > Assignments, project, and quiz

# Questions?