



# Design Patterns (E3COD001C)

**Introduction** Through a series of examples and exercises, students learn about how different components in software engineering are put together to form larger systems. From the oft-mentioned Object-Oriented Programming (OOP), to more advanced topics in such as Graphical User Interface (GUI) and 3D Engine, how to build complex software system on the paper and inside real coding will be explored.

**Programme Type / Level** Coding Course (Level III) ([Token-required](#))

**Instructor(s)** Mr LAU Kam Ming, Erwin  
(Smart Kiddo Education Limited)

- Pre-requisite**
- Experience in any form of coding.
  - Interested in computer science and/or engineering.
  - Students are recommended to bring their own PC/Mac laptops.
  - The student has security right to install software onto the laptop brought along.

- Target Participants**
- S3-S6 HKAGE student members
  - Class size: 30

**Medium of Instruction** English with English Handouts

**Certificate** **E-Certificate** will be awarded to participants who have:

- ❖ Attended **AT LEAST 4** sessions AND
- ❖ Completed all the assessments with satisfactory performance.

- Intended Learning Outcomes**
- Upon completion of the programme, participants should be able to:
1. recognize certain design patterns by reading computer codes;
  2. communicate with design patterns lingua;
  3. create and use Unified Modelling Language (UML);
  4. implement the same UML design pattern using different computer programming languages.

**Screening**

**(After 31 Dec)**  
**First-come, first-served.**

Please answer the screening question in the online application form.  
\*The screening question is designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate motivation and the knowledge of Coding in the screening question can be enrolled in the programme.

**Application Deadline** **1<sup>st</sup> batch: 28 Dec 2020, 12:00 n.n**  
**2<sup>nd</sup> batch: 18 Jan 2021**  
**(First-come, first-served)**

**Application Result Release Date** **1<sup>st</sup> batch: 31 Dec 2020**  
**2<sup>nd</sup> batch: N/A**

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

| Schedule | Session | Date   | Time                   | Venue                 |
|----------|---------|--------|------------------------|-----------------------|
|          | 1       | 16 Jan | 9:30 a.m. – 12:30 p.m. | HKAGE<br>Zoom Meeting |
|          | 2 1     | 30 Jan |                        |                       |
|          | 3 2     | 6 Feb  |                        |                       |
|          | 4 3     | 16 Feb |                        |                       |
|          | 5 4     | 20 Feb |                        |                       |
|          | 5       | 27 Feb |                        |                       |

**Enquiries** For enquiries, please contact Academic Programme Development Division on 3940 0101 after language selection, press "1".