

Laboratory in Information Science 4

Syllabus Number

4C302

Special Subjects

Requisites 2 credit

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1. Course Description

In this course, students use UML (Unified Modeling Language) as the modeling language, MySQL as the database system, and Java as the programming language. Students are expected to learn by the following three steps. First, they learn the development process of information systems, the fundamentals of programming to operate the database and three UML diagrams (use case diagram, class diagram and sequence diagram). Second, they practice the modeling of an information system with UML. Finally, they develop a part of an example of a system using Java.

This course is related to diploma policy DP3 and DP4.

2. Course Objectives

This course aims to provide an understanding of information systems modeling. The specific goals for students are the following:

- To understand the development process of information systems.
- To understand how to model information systems.
- Being able to describe the results of the modeling.
- Being able to develop the program corresponding to the model.

3. Grading Policy

To pass, students must earn at least 60 points out of 100 in the final examination and be accept all reports.

4. Textbook and Reference

Textbook

LMS

5. Requirements(Assignments)

Learning materials for each class will be carried on LMS in advance. For preparation, students are expected to read the materials. After classes, provide report and take a quiz in order to check your understanding of the class content. The preparation and after-class learning will take one hour each.

6. Note

7. Schedule

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| [1] | Information system development process |
| [2] | UML Overview and use case diagram |
| [3] | Class diagram |
| [4] | Sequence diagram |
| [5] | Modeling practice |
| [6] | Modeling exercise(1) |
| [7] | Database |
| [8] | Java program(1) |
| [9] | Java program(2) |
| [10] | Modeling exercise(2) |
| [11] | System development exercise with Java(1) |
| [12] | System development exercise with Java(2) |
| [13] | System development exercise with Java(3) |
| [14] | System development exercise with Java(4) |
| [15] | Summary |