

Instructional Design of Information Study 1

Teacher Licence
Subjects Requisites
2 credit

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1. Course Description

This course deals with educational goals and contents in a subject "Information" of high schools in Japan. First, students will learn about information education using the latest ministry's curriculum guideline and past background. In this course, we will treat new teaching guides for the courses of study mainly. Then, they will think about treatment and instruction of typical educational contents in "Information" to acquire basic knowledge regarding information education. The students are expected to decipher learning materials, investigate by themselves, make presentations, and conduct peer-review.

At the end of the course, student will make annual teaching plan of "Information".

2. Course Objectives

This course aims to provide students with an understanding of educational goals and contents of information education in secondary schools. Students will learn the philosophy of instructional design of the subject area "Information". At the same time, they will improve communication and presentation skills needed to become a teacher.

The specific goals for students are the following:

-To be able to explain education philosophy and goals of information education in primary and secondary schools.

-To be able to understand educational contents of the subject area "Information" and teaching methods for them.

-To be able to design instructions to teach about problem solving, programming, presentation and group work.

3. Grading Policy

The criteria for passing are to be accepted all required reports. The feedback on reports are given during classes. The final grade of students who passed will be calculated according to the following process: presentation and discussion in each class 30%, reports in each class 30%, report on annual teaching plan 20%, and final report 20%.

4. Textbook and Reference

Textbook

MEXT Teaching guides for the courses of study "Information" MEXT(2018)
(https://www.mext.go.jp/content/1407073_11_1_2.pdf)

Information Study by Scientific Approach Tokyo Shoseki Co., Ltd.

MEXT Learning material for teachers on information subject at high school "Information I" MEXT (2019)

(https://www.mext.go.jp/a_menu/shotou/zyouhou/detail/1416756.htm)

5. Requirements(Assignments)

The theme and action items of each class will be announced one week in advance. Students are required to do designated reading task, investigation or preparation of presentation before each class. It will take two hours. After each class, students are expected to review the class. It will take one hour.

6. Note

The course is conducted in Japanese.

7. Schedule

- [1] Introduction, teaching guides for the courses of study and information education
- [2] Subjects of "information" at high schools
- [3] Instructional design and learning assessment
- [4] Instruction on "Information security and characteristics of information and media"
- [5] Instruction on "Information moral and information technology"
- [6] Instruction on "Digitalization and communication"
- [7] Instruction on "Information design"
- [8] Instruction on "How a computer works"
- [9] Instruction on "Basics of programming"
- [10] Instruction on "Algorithm and programming"
- [11] Instruction on "Modeling and simulation"
- [12] Annual teaching plan of "Information".
- [13] Instruction on "Presentation"
- [14] Preparation of presentation
- [15] Review and final report.