Method of Science Education 1

Teacher Licence
Subjects　Requisites
2 credit

SAITO, Takeshi

1. Course Description

Learn the history and current state of science education transition accompanying revision of high school curriculum guidelines. We will grasp the problems of high school science education and learn the method of teaching subjects. Learning about the qualities and abilities required as a science teacher, we aim to improve leadership skills by acquiring basic knowledge and skills. We will practice the teaching materials making use of information equipment. About the assignment report, we will do group work and deepen understanding.

2. Course Objectives

By understanding the curriculum goals and subject targets of high school science department, you can acquire basic knowledge and skills necessary as a science teacher, and can be used for subject guidance and student guidance. Understand effective utilization of information equipment and use it for subject guidance.

3. Grading Policy

Evaluate by Exercise test (60%), Exercise print, Assignment report (40%).Report will be returned and discussed.

4. Textbook and Reference

Textbook
ASASHIMA Makoto and 24 others　Revision Basics of Biology" ISBN 978-4-487-16549-0.
　Tokyo Syoseki.
Reference
MEXT &quot.　High school study instructors guide Science edition･Mathematical
version" July Heisei 30 year.
ISBN 978-4-407-34873-6.　Jikkyou Syuppann.
NIER Curriculum Research Center &quot.　Creating evaluation criteria,
Evaluation method etc. Reference material for improving ingenuity "[Science
of High School] July, Heisei 24 year.
ISBN 978-4-316-30065-8.　Kyouiku　Syuppann.

5. Requirements(Assignments)

Please study about the next theme before you go to class (60 minutes). I will talk about issues related to the science education. So, please investigate carefully and be sure to submit (90 minutes). Please summarize the main points and impressions of each learning content and submit it next time (30 minutes).

6. Note

･ Reference books are used from the first time so be sure to prepare them.
･ Expect to have wide range of interests and interests in natural science.

7. Schedule

[1]　Orientation
[2]　Issue of science education①.　About science departure.
[3]　Issue of science education②.　Role of science teachers.
[4]　Science objectives and course objectives of high school science.
[5]　Composition of standard subjects of the high school science science and standard number of units.
[6]　Legal position of curriculum formation. Education related laws and science education related laws and regulations.
[7]　Responding to students who need special support.
[8]　Utilizing familiar teaching materials.
[9]　Observation ･ Experiment worksheet preparation①. Created with reference to the form.
[10]　Observation ･ Experiment worksheet preparation②.　Expected results.
[11]　Safety management of observation and experiment.　Accident cases and accident prevention.
[12]　Test question creation①.　Question creation.
[13]　Test question creation②.　Creating and checking answer sheets with answers.
[14]　Observation ･ Experiment worksheet preparation, Test question creation, reconsideration and summary.
[15]　Summary of the qualities and abilities as a science teacher.