

# Development of Contemporary Science and Technology1

Syllabus Number

0L201

General Basic Subjects  
Elective 2 credit

SANO Kazumi

## 1. Course Description

In this lecture, we discuss the relationship between science and society, the scientific way of thinking and the manner of science. Since science and technology are "live", it is necessary to be interested in the cutting-edge of science and technology that is updated daily, and to capture science as a part of society.

In the first half of the course, we will outline the history of development of science and overlook current cutting-edge science.

In the second half, we will discuss "science until today" through the keywords such as "safety myth" and "research misconduct".

## 2. Course Objectives

The students understand the merits and demerits of science and technology, understand the relationship between science and society, acquire scientific literacy and social literacy and understand the concept of risk.

## 3. Grading Policy

We will evaluate with 2 report (only in Japanese) assignments (60%), after lesson reaction paper (30%) and attendance (10%).

The report will be evaluated on whether it is not copied from somewhere but your own opinion.

I will return the report in class.

If there are no more than two-thirds of attendance, no unit will be issued even if only report is submitted.

## 4. Textbook and Reference

Textbook

Satoru Ikeuchi 科学のこれまで、科学のこれから (Iwanami Booklet No. 902)

ISBN-13: 978-4002709024 Iwanami Shoten

## 5. Requirements(Assignments)

Please also look into topics on science and technology covered in newspapers, television and the Internet.

Write something about news on science and technology.

The slides of this course will be posted on LMS. Please be sure to watch LMS every week for preparation and review. I will instruct the assignment etc of the report in the class.

I think that it takes about 1 hour for preparation review.

## 6. Note

We will use LMS to prepare for review.

In addition, resume distribution as necessary.

## 7. Schedule

- [1] Guidance. Science New Stop 10 in 2019
- [2] Science and bioethics - iPS, personal genome, gene therapy, etc.
- [3] The history of the development of science (1): before the scientific revolution
- [4] The history of the development of science (2): after the scientific revolution
- [5] Relationship between science and religion
- [6] Professionalization of science, the birth of a university
- [7] Difference between science and technology
- [8] History of Japanese science and technology
- [9] Relationship between science and technology and society
- [10] Science and technology and war
- [11] Science and technology and nuclear power
- [12] Ethics in science and technology
- [13] Public nature of science and technology
- [14] On various problems of science and technology
- [15] Conclusion, discussion and preparation of report