

# 生命科学入門

Syllabus Number

5D160

Special Subjects

Elective 2 credit

HIRASAWA, Takae

## 1. Course Description

The purpose of this course is to learn

- (1)Introduction to Cells biology
- (2)Introduction to Animals biology
- (3)Introduction to Plants biology

This course relate to diplomatic policy 1.

## 2. Course Objectives

The aim of this course is to understand general biological mechanisms.

## 3. Grading Policy

The grading is evaluated based on an examination or a report given by each teacher. We will give feedback upon returning the report or the examination.

## 4. Textbook and Reference

Textbook

No fixed textbook. Prints will be distributed.

## 5. Requirements(Assignments)

In each lecturer topic, students should review the biology they learned in high school (30 min). Students should review of each lecture or preparation of reports (60 min) .

## 6. Note

We recommend that students take this course if they plan to take "Fundamental Genetics".

## 7. Schedule

- [1] Guidance
- [2] Formation of cells (Dr. Takayama)
- [3] DNA, chromatin, nucleosome (Dr. Takayama)
- [4] DNA replication, transcription, translation (Mr. Saito)
- [5] Mitosis (Dr. Takayama)
- [6] Meiosis (Dr. Takayama)
- [7] Fundamental laws of inheritance 1 (Mr. Saito)
- [8] Fundamental laws of inheritance 2 (Mr. Saito)
- [9] Animal reproduction and development (Dr. Ota)
- [10] Environmental response of animals (Dr. Hirasawa)
- [11] Animal homeostasis (Dr. Uchino)
- [12] Plant development (Dr. Asahina)
- [13] Plant reproduction (Dr. Asahina)
- [14] Environmental response of plant (Dr. Asahina)
- [15] Conclusion