

# Fundamental Genetics

Syllabus Number

5C121

Basic Major Subjects

Elective Requisites 2  
credit

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## 1. Course Description

The purpose of this course is to learn

(1)DNA, chromosome, cell proliferation

(2)Mendel's law

(3)population genetics

This course relate to diplomatic policy 1 and 2.

## 2. Course Objectives

The aim of this course is to understand general mechanisms.

(1)Mendel's law

(2)Chromosome map

(3)Hardy-Weinberg's law

## 3. Grading Policy

The learning results are evaluated based on : tests (80%) and reports (20%).

## 4. Textbook and Reference

Textbook

基礎遺伝学 ISBN 978-7853-5814-3

ケイン基礎生物学 ISBN 978-4-8079-077-0

## 5. Requirements(Assignments)

## 6. Note

## 7. Schedule

- |      |  |
|------|--|
| [1]  | Guidance and mini-test                               |
| [2]  | DNA, gene, chromosome                                |
| [3]  | mistosis and meiosis                                 |
| [4]  | genotype and phenotype                               |
| [5]  | Mendel's law   |
| [6]  | non-mendel's law                                     |
| [7]  | linkage and crossing over                            |
| [8]  | chromosome mapping (2 point cross)                   |
| [9]  | chromosome mapping (3 point cross)                   |
| [10] | midterm test   |
| [11] | explanatory nots of midterm test and genetic variant |
| [12] | dependence of chromosome and genetics                |
| [13] | population genetics                                  |
| [14] | Hardy-Weinberg's law                                 |
| [15] | Final test   |