#### 一、課程說明(Course Description)

Genetics is a 16-week course designed for biology majors and is part of the core that all biology majors must complete. The objective of the course is to introduce the principles of Mendelian, molecular, quantitative and population genetics. In addition to the body of facts associated with genetics, you will be introduced to the methods that various scientists have used to solve different problems in genetics and the methodology that was used to test competing theories. Teaching materials will be provided to students before lectures for their preparation. Discussion and asking questions are highly encouraged. It is a very good idea to read assigned chapters before the lecture instead of afterward. Ask questions if concepts are initially unclear. Students who study the material before class and come to class with prepared questions, in general, will do much better than those who do not. It is also a good habit to take notes during lecture. Group study is encouraged - having to explain something to someone really focuses your attention on what you do or don't understand! However, while you are encouraged to talk to each other about solving problems, you must be able to work on your own when writing out the answers. After final exam, one more class will be provided to clarify students' concepts and answer their questions.

### 二、指定用書(Text Books)

Genetics: Analysis and Principles (volume 1 and 2), 7th edition by Snustad and Simmons (Wiley)

## 三、參考書籍(References)

No.

## 四、教學方式(Teaching Method)

Lectures in class, and may have homework or in-class test depending on lecturers.

#### 五、教學進度(Syllabus)

| Week | Date   | Weekday   | Topic        | Lecturer |
|------|--------|-----------|--------------|----------|
| 1    | 13-Feb | Monday    | Chapter 1, 2 | 李政昇      |
|      | 15-Feb | Wednesday | Chapter 3    | 李政昇      |
| 2    | 20-Feb | Monday    | Chapter 4    | 李政昇      |
|      | 22-Feb | Wednesday | Chapter 4    | 李政昇      |
| 3    | 27-Feb | Monday    | Chapter 5    | 李政昇      |
|      | 1-Mar  | Wednesday | Chapter 6    | 李政昇      |
| 4    | 6-Mar  | Monday    | Chapter 6, 7 | 李政昇      |
|      | 8-Mar  | Wednesday | Chapter 7    | 李政昇      |
| 5    | 13-Mar | Monday    | Chapter 8    | 李政昇      |

|    | 15-Mar | Wednesday | Chapter 9      | 李政昇   |
|----|--------|-----------|----------------|-------|
| 6  | 20-Mar | Monday    | Chapter 19     | 張筱涵   |
|    | 22-Mar | Wednesday | Chapter 19, 20 | 張筱涵   |
| 7  | 27-Mar | Monday    | Chapter 20, 24 | 張筱涵   |
|    | 29-Mar | Wednesday | Chapter 24     | 張筱涵   |
| 8  | 3-Apr  | Monday    | Chapter 10     | 廖品超   |
|    | 5-Apr  | Wednesday | 民族掃墓節          |       |
| 9  | 10-Apr | Monday    | 期中考            | 李/張   |
|    | 13-Apr | Wednesday | Chapter 11     | 廖品超   |
| 10 | 17-Apr | Monday    | Chapter 12     | 廖品超   |
|    | 19-Apr | Wednesday | Chapter 12, 13 | 廖品超   |
| 11 | 24-Apr | Monday    | Chapter 14     | 廖品超   |
|    | 26-Apr | Wednesday | Chapter 14     | 廖品超   |
| 12 | 1-May  | Monday    | Chapter 15     | 廖品超   |
|    | 3-May  | Wednesday | Chapter 15, 16 | 廖品超   |
| 13 | 8-May  | Monday    | Chapter 17     | 廖品超   |
|    | 10-May | Wednesday | Chapter 17, 18 | 廖品超   |
| 14 | 15-May | Monday    | Chapter 18     | 廖品超   |
|    | 17-May | Wednesday | Chapter 21,22  | 廖品超   |
| 15 | 22-May | Monday    | Chapter 22     | 廖品超   |
|    | 24-May | Wednesday | Chapter 23     | 廖品超   |
| 16 | 29-May | Monday    | 期末考            | 廖品超   |
|    | 31-May | Wednesday | Discussion     | 廖/李/張 |

# 六、成績考核(Evaluation)

總成績:期中考(50%)及期末考 (50%). (If there are homework and in-class test will be considered as bonus).

七、可連結之網頁位址

https://eeclass.nthu.edu.tw/