



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	遺傳學		學年/學期 Academic Year/Semester	112/1	
課程名稱(英文) Course Name in English	Genetics				
科目代碼 Course Code	LF_20800	系級 Department & Year	學二	開課單位 Course-Offering Department	生命科學系
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/林國知				
先修課程 Prerequisite					
課程描述 Course Description					
藉由上課講解及討論讓學生由淺入深、了解傳統之古典遺傳學及現代分子遺傳學之遺傳現象					
課程目標 Course Objectives					
了解古典遺傳學及現代遺傳學之理論及研究之法。					
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives	
A	具備生命科學相關學科之基礎知識Having the basic knowledge of life science.			●	
B	具備邏輯分析與解決問題的能力Having the capabilities of logical analysis and problem solving			●	
C	具備資料整合、數據分析與書面及口頭報告之能力Having the capabilities of data integration and analysis, and the skills of written and poster presentation.			○	
D	具備終生學習的能力Having the capability of lifelong learning.			●	
圖示說明Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated					
授課進度表 Teaching Schedule & Content					
週次Week	內容 Subject/Topics			備註Remarks	
1	Chapter 1 : Introduction				
2	Chapter 2 : Mitosis and meiosis				
3	Chapter 3 : Mendelian genetic				
4	Chapter 4 : Extension of Mendelian genetics				
5	Chapter 4 : Extension of Mendelian genetics Chapter 7 : Chromosome mapping in eukaryotes				
6	Chapter 7 : Chromosome mapping in eukaryotes				
7	Chapter 5 : Sex determination and sex chromosome				

8	Chapter 5 : Sex determination and sex chromosome	
9	11/8 期中考 Midterm Exam	
10	11/15 全校運動會停課一天	
11	Chapter 6 : Chromosome mutation: Variation in chromosome number and arrangement	
12	Chapter 6 : Chromosome mutation: Variation in chromosome number and arrangement	
13	Chapter 13 : Definition of genes Chapter 13 (Supplement) : Molecular analysis of genes and gene products	
14	Chapter 15 : Gene mutation, DNA repair, and transposition	
15	Chapter 19 : Epigenetic regulation of gene expression	
16	Chapter 21 : Genomics, bioinformatics, and proteomics	
17	1/3 期末考試週 Final Exam	
18		

### 教學策略 Teaching Strategies

- 課堂講授 Lecture
  分組討論 Group Discussion
  參觀實習 Field Trip  
 其他 Miscellaneous:

### 教學創新自評 Teaching Self-Evaluation

#### 創新教學 (Innovative Teaching)

- 問題導向學習 (PBL)
  團體合作學習 (TBL)
  解決導向學習 (SBL)  
 翻轉教室 Flipped Classroom
  磨課師 Moocs

#### 社會責任 (Social Responsibility)

- 在地實踐 Community Practice
  產學合作 Industry-Academia Cooperation

#### 跨域合作 (Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
  跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

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學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance									
期中考成績 Midterm Exam	50%								
期末考成績 Final Exam	50%								
作業成績 Homework and/or Assignments									
其他 Miscellaneous (Class attendance)	5%								

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

Concept of Genetics, by Klug et al., 2020, 12th ed (偉明書局)

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.  
Personal website can be listed here.)

其他補充說明 (Supplemental instructions)