



教學計劃表 Syllabus

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| 課程名稱(中文) Course Name in Chinese | 普通生物學(一) | | 學年/學期 Academic Year/Semester | 113/2 |
| 課程名稱(英文) Course Name in English | General Biology (I) | | | |
| 科目代碼 Course Code | CES_10600 | 系級 Department & Year | 學一 | 開課單位 Course-Offering Department |
| 修別 Type | 學程 Program | 學分數/時間 Credit(s)/Hour(s) | 3.0/3.0 | |
| 授課教師 Instructor | /周志青 | | | |
| 先修課程 Prerequisite | | | | |
| 課程描述 Course Description | | | | |
| 協助學生瞭解生物學之基本概念、原理與原則；學習自然科學的邏輯思維與分析方法，培養觀察與探索生命與生物世界的意願與興趣，奠定環境與自然資源專業課程所需的生物學基礎。 | | | | |
| 課程目標 Course Objectives | | | | |
| 協助學生瞭解生物學之基本概念、原理與原則；學習自然科學的邏輯思維與分析方法，培養觀察與探索生命與生物世界的意願與興趣，奠定環境與自然資源專業課程所需的生物學基礎。 | | | | |
| 院基本素養與核心能力 College Basic Learning Outcomes | | | | 課程目標與院基本素養與核心能力 Correlation between Course Objectives and Basic Learning Outcomes |
| A | 具備自然科學與社會科學的基礎知識 To be knowledgeable of fundamental theories in the natural and social sciences. | | | ● |
| B | 具備觀察、理解、闡釋自然環境與人類社會互動及變遷關係的能力 To be able to observe, understand, and interpret the changing interactions of natural resources and human society. | | | ● |
| C | 具備多元資料收集策略、閱讀論文、撰寫環境報導及創意口頭報告的能力 To have the ability to collect data, understand scientific literature, and write and present environmentally related reports. | | | ● |
| D | 能終身學習、對環境維持熱情、關懷、並願意做出對在地環境獻身的承諾 To cultivate the values of lifelong learning, to maintain enthusiasm and concern for the environment, and to develop commitment to the local environment. | | | |
| E | 具備環境倫理觀、社會責任感與社會實踐力 To develop and implement environmental ethics and social responsibility. | | | |
| F | 具備獨立思考、溝通協調與團隊合作的能力 To think independently, to communicate effectively, and to cooperate with others as a team. | | | |
| G | 具備基本外國語文能力 The be able to communicate in a foreign language. | | | ● |
| 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 | Introduction | | | |
| 2 | Chapter 2 The Chemical Basis of Life | | | |
| 3 | Chapter 3 The Molecules of Cells | | | |

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|----|---|--|
| 4 | Chapter 4 A Tour of the Cell | |
| 5 | Chapter 5 The Working Cell | |
| 6 | Chapter 6 How Cells Harvest Chemical Energy | |
| 7 | Chapter 7 Photosynthesis I | |
| 8 | Chapter 7 Photosynthesis II | |
| 9 | 期中考試週 Midterm Exam | |
| 10 | Chapter 8 The Cellular Basis of Reproduction and Inheritance I | |
| 11 | Chapter 8 The Cellular Basis of Reproduction and Inheritance II | |
| 12 | Chapter 9 Patterns of Inheritance | |
| 13 | Chapter 10 Molecular Biology of the Gene | |
| 14 | Chapter 11 How Genes Are Controlled I | |
| 15 | Chapter 11 How Genes Are Controlled II | |
| 16 | Chapter 12 DNA Technology and Genetics | |
| 17 | 期末考試週 Final Exam | |
| 18 | Flexible Supplemental Instruction Week | |

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:

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 | 10% | | | | | | | | 出席率 |
| 期中考成績 Midterm Exam | 45% | ✓ | | | | | | | |
| 期末考成績 Final Exam | 45% | ✓ | | | | | | | |
| 作業成績 Homework and/or Assignments | | | | | | | | | |
| 其他 Miscellaneous (_____) | | | | | | | | | |

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.)

Campbell Biology, Concepts & Connections, 10th Ed., Taylor et al., 2022 (偉明圖書代理)

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)