

 國立東華大學  
教學計劃表 Syllabus

|                                                                       |                                                                                                                                     |                         |                         |                             |                                 |      |                                    |                                                                                         |            |  |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-----------------------------|---------------------------------|------|------------------------------------|-----------------------------------------------------------------------------------------|------------|--|
| 課程名稱(中文)<br>Course Name in Chinese                                    |                                                                                                                                     | 生物化學實驗AB                |                         |                             | 學年/學期<br>Academic Year/Semester |      | 114/1                              |                                                                                         |            |  |
| 課程名稱(英文)<br>Course Name in English                                    |                                                                                                                                     | Biochemistry Laboratory |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 科目代碼<br>Course Code                                                   |                                                                                                                                     | BMM_3200AB              | 系級<br>Department & Year |                             | 學三                              |      | 開課單位<br>Course-Offering Department |                                                                                         | 生化暨分子醫學科學系 |  |
| 修別<br>Type                                                            |                                                                                                                                     | 學程 Program              |                         | 學分數/時間<br>Credit(s)/Hour(s) |                                 | 1.0/ |                                    |                                                                                         |            |  |
| 授課教師<br>Instructor                                                    |                                                                                                                                     | /謝函芸                    |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 先修課程<br>Prerequisite                                                  |                                                                                                                                     |                         |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 課程描述 Course Description                                               |                                                                                                                                     |                         |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 配合生物化學課程，學生親手操作生物化學領域應用到的基本技術，以實作來建立生物化學研究之概念。                        |                                                                                                                                     |                         |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 課程目標 Course Objectives                                                |                                                                                                                                     |                         |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 配合生物化學課程，學生親手操作生物化學領域應用到的基本技術，以實作來建立生物化學研究之概念。                        |                                                                                                                                     |                         |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 系專業能力<br>Basic Learning Outcomes                                      |                                                                                                                                     |                         |                         |                             |                                 |      |                                    | 課程目標與系專業能力相關性<br>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                                                                     |                                                                                                                                     | 安全守則、分組                 |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 2                                                                     |                                                                                                                                     | 胺基酸定性分析                 |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 3                                                                     |                                                                                                                                     | 蛋白質定量                   |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 4                                                                     |                                                                                                                                     | 膠體過濾層析法<br>離子交換層析法      |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 5                                                                     |                                                                                                                                     | 膠體過濾層析法<br>離子交換層析法      |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 6                                                                     |                                                                                                                                     | 膠體過濾層析法<br>離子交換層析法      |                         |                             |                                 |      |                                    |                                                                                         |            |  |
| 7                                                                     |                                                                                                                                     | 醣類定性與定量分析               |                         |                             |                                 |      |                                    |                                                                                         |            |  |

|    |                    |  |
|----|--------------------|--|
| 8  | 脂質萃取與分析            |  |
| 9  | 期中考試週 Midterm Exam |  |
| 10 | 校慶運動會              |  |
| 11 | 脂質的聚合型態與脂膜穿透性      |  |
| 12 | 酵素反應條件選定           |  |
| 13 | 酵素動力學              |  |
| 14 | 三分鐘口頭報告；大掃除        |  |
| 15 | Final exam         |  |
| 16 | 溫書假                |  |
| 17 | 期末考試週 Final Exam   |  |
| 18 | 彈性教學週              |  |

### 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<br>Items                                                                                                                                         | 配分比例<br>Percentage | 多元評量方式 Assessments |          |          |          |          |          |          |    |
|                                                                                                                                                       |                    | 測驗<br>會考           | 實作<br>觀察 | 口頭<br>發表 | 專題<br>研究 | 創作<br>展演 | 卷宗<br>評量 | 證照<br>檢定 | 其他 |
| 平時成績(含出缺席)<br>General Performance<br>(Attendance Record)                                                                                              |                    |                    |          |          |          |          |          |          |    |
| 期中考成績 Midterm Exam                                                                                                                                    |                    |                    |          |          |          |          |          |          |    |
| 期末考成績 Final Exam                                                                                                                                      |                    |                    |          |          |          |          |          |          |    |
| 作業成績 Homework and/or<br>Assignments                                                                                                                   |                    |                    |          |          |          |          |          |          |    |
| 其他 Miscellaneous<br>(_____)                                                                                                                           |                    |                    |          |          |          |          |          |          |    |
| 評量方式補充說明<br>Grading & Assessments Supplemental instructions<br>實驗報告 35%、出席 30%、one page show 報告 20%、期末考 15%                                           |                    |                    |          |          |          |          |          |          |    |
| 教科書與參考書目(書名、作者、書局、代理商、說明)<br>Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)<br>講義                                      |                    |                    |          |          |          |          |          |          |    |
| 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)<br>Teaching Aids & Teacher's Website(Including online teaching information.<br>Personal website can be listed here.) |                    |                    |          |          |          |          |          |          |    |
| 其他補充說明 (Supplemental instructions)                                                                                                                    |                    |                    |          |          |          |          |          |          |    |