



## 課 綱 Course Outline

### 生化暨分子醫學科學系學士班

|                                                                        |                                                                                                                                         |                  |                    |                                                                                          |     |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|------------------------------------------------------------------------------------------|-----|
| 中文課程名稱<br>Course Name in Chinese                                       | 生物化學（二）                                                                                                                                 |                  |                    |                                                                                          |     |
| 英文課程名稱<br>Course Name in English                                       | Biochemistry（Ⅱ）                                                                                                                         |                  |                    |                                                                                          |     |
| 科目代碼<br>Course Code                                                    | BMM_22000                                                                                                                               | 班 別<br>Degree    | 學士班<br>Bachelor' s |                                                                                          |     |
| 修別<br>Type                                                             | 學程<br>Program                                                                                                                           | 學分數<br>Credit(s) | 3.0                | 時 數<br>Hour(s)                                                                           | 3.0 |
| 先修課程<br>Prerequisite                                                   | 無                                                                                                                                       |                  |                    |                                                                                          |     |
| 課程目標<br>Course Objectives                                              |                                                                                                                                         |                  |                    |                                                                                          |     |
| 使學生了解體內化合物於細胞的新陳代謝及其生理意義                                               |                                                                                                                                         |                  |                    |                                                                                          |     |
| 系教育目標<br>Dept.'s Education Objectives                                  |                                                                                                                                         |                  |                    |                                                                                          |     |
| 1                                                                      | 培養生化及生物醫學相關領域之人才。<br>Cultivating talents engaged in biochemistry and molecular medicine.                                                |                  |                    |                                                                                          |     |
| 2                                                                      | 培育學生具有自我學習、獨立思考與創新之能力。<br>Fostering students to acquire the capabilities of self-learning, independent thinking, and innovation.        |                  |                    |                                                                                          |     |
| 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。<br>Having the basic knowledge of life science.                                                                         |                  |                    | ●                                                                                        |     |
| B                                                                      | 具備邏輯分析與解決問題的能力。<br>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。<br>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。<br>Having the capability of lifelong learning.                                                                               |                  |                    |                                                                                          |     |
| 圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated |                                                                                                                                         |                  |                    |                                                                                          |     |
| 課程大綱<br>Course Outline                                                 |                                                                                                                                         |                  |                    |                                                                                          |     |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 脂肪酸的氧化<br>2. 胺基酸的氧化，及尿酸的產生<br>3. 碳水化合物合成<br>4. 脂肪的合成<br>5. 胺基酸，核酸的合成<br>6. 荷爾蒙調節的新陳代謝<br>7. 基因<br>8. DNA的新陳代謝<br>9. RNA的新陳代謝<br>10. 蛋白質的新陳代謝<br>11. 基因調節<br>12. 基因重組技 |
| 資源需求評估（師資專長之聘任、儀器設備的配合．．．等）<br>Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)                                                    |
| 現有合宜專任師資；購置訂閱生物化學相關圖書及期刊，提供幻燈機，投影機等教學用具。                                                                                                                                 |
| 課程要求和教學方式之建議<br>Course Requirements and Suggested Teaching Methods                                                                                                       |
| 本課程除主題講授外，並說明重要實驗之原理與設計                                                                                                                                                  |
| 其他<br>Miscellaneous                                                                                                                                                      |
|                                                                                                                                                                          |