


**國立東華大學**  
**教學計劃表 Syllabus**

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| 課程名稱(中文)<br>Course Name in Chinese                                    | 營養與代謝                                                                                                                               |                             |    | 學年/學期<br>Academic Year/Semester    | 115/1                                                                                    |
| 課程名稱(英文)<br>Course Name in English                                    | Nutrition & Metabolism                                                                                                              |                             |    |                                    |                                                                                          |
| 科目代碼<br>Course Code                                                   | BMM_22130                                                                                                                           | 系級<br>Department & Year     | 學二 | 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) |    | 2.0/2.0                            |                                                                                          |
| 授課教師<br>Instructor                                                    | /蘇玟                                                                                                                                 |                             |    |                                    |                                                                                          |
| 先修課程<br>Prerequisite                                                  |                                                                                                                                     |                             |    |                                    |                                                                                          |
| 課程描述 Course Description                                               |                                                                                                                                     |                             |    |                                    |                                                                                          |
| 教導學生了解各種營養物質的生化特性以及其代謝路徑的相關之調控機制和訊息傳導路徑                               |                                                                                                                                     |                             |    |                                    |                                                                                          |
| 課程目標 Course Objectives                                                |                                                                                                                                     |                             |    |                                    |                                                                                          |
| 教導學生了解各種營養物質的生化特性以及其代謝路徑的相關之調控機制和訊息傳導路徑。                              |                                                                                                                                     |                             |    |                                    |                                                                                          |
| 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                                                                     | Class introduction; Overview of nutrition Chap 1                                                                                    |                             |    |                                    |                                                                                          |
| 2                                                                     | Planning a healthy diet Chap. 2                                                                                                     |                             |    |                                    |                                                                                          |
| 3                                                                     | Digestion, Absorption, and transport Chap. 3                                                                                        |                             |    |                                    |                                                                                          |
| 4                                                                     | Carbohydrates Chap. 4                                                                                                               |                             |    |                                    |                                                                                          |
| 5                                                                     | Lipids Chap. 5                                                                                                                      |                             |    |                                    |                                                                                          |
| 6                                                                     | Protein Chap. 6                                                                                                                     |                             |    |                                    |                                                                                          |
| 7                                                                     | Energy Metabolism Chap. 7                                                                                                           |                             |    |                                    |                                                                                          |
| 8                                                                     | Energy Balance; Weight management Chap. 8, 9                                                                                        |                             |    |                                    |                                                                                          |

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|----|------------------------------------------------------------------|--|
| 9  | 期中考試週 Midterm Exam                                               |  |
| 10 | Water-soluble vitamins Chap. 10                                  |  |
| 11 | Water-soluble vitamins Chap. 10<br>Fat-soluble vitamins Chap. 11 |  |
| 12 | Fat-soluble vitamins Chap. 11                                    |  |
| 13 | Water and major minerals Chap. 12                                |  |
| 14 | Trace minerals Chap. 13                                          |  |
| 15 | Oral presentation                                                |  |
| 16 | Oral presentation                                                |  |
| 17 | Oral presentation                                                |  |

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| 彈性<br>教學<br>規劃<br>Flexible<br>Teaching<br>Plan | <p>請勾選(至少需勾選1 個項目):<br/>Please tick the box(es). (At least one item is required.):</p> <p> <input type="checkbox"/> 問題討論 Problem-based Discussion<br/> <input type="checkbox"/> 翻轉教學 Flipped Classroom<br/> <input type="checkbox"/> 展演實作 Performance / Practical Presentation<br/> <input type="checkbox"/> 校外參訪 Off-campus Visit<br/> <input type="checkbox"/> 講座活動 Lecture / Seminar<br/> <input type="checkbox"/> 線上作業 Online Assignments<br/> <input type="checkbox"/> 自主學習 Self-directed Learning<br/> <input type="checkbox"/> 課業輔導 Academic Support<br/> <input type="checkbox"/> 實驗操作 Experiment Operation<br/> <input type="checkbox"/> 遠距教學(同步) Distance Learning (Synchronous)<br/> <input type="checkbox"/> 遠距教學(非同步) Distance Learning (Asynchronous)<br/> <input type="checkbox"/> 其他(請填寫) Others (Please specify.):         </p> |
|                                                | <p>備註: 本校學期週數自115 學年度起調整為17 週, 為符合1學分18 小時之原則, 請教師規劃安排彈性教學。</p> <p>Note: From the 115th academic year, the semester will be 17 weeks. Please include flexible teaching activities to meet the required 18 hours per credit.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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)                                                                                              | 5%                 |                    |          |          |          |          |          |          |    |
| 期中考成績 Midterm Exam                                                                                                                                    | 30%                |                    |          |          |          |          |          |          |    |
| 期末考成績 Final Exam                                                                                                                                      | 30%                |                    |          |          |          |          |          |          |    |
| 作業成績 Homework and/or<br>Assignments                                                                                                                   | 5%                 |                    |          |          |          |          |          |          |    |
| 其他 Miscellaneous<br>(報告)                                                                                                                              | 30%                |                    |          |          |          |          |          |          |    |
| 評量方式補充說明<br>Grading & Assessments Supplemental instructions                                                                                           |                    |                    |          |          |          |          |          |          |    |
| 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.)                                            |                    |                    |          |          |          |          |          |          |    |
| 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)                                                                                                                    |                    |                    |          |          |          |          |          |          |    |