

國立中山大學生物醫學科技學系
總結性課程(Capstone)實施要點

**Guidelines on the Implementation of the Capstone Course in
the Department of Biomedical Science and Technology**

114 年 09 月 09 日 114 學年度第 1 次聯合系課程委員會修正通過

114 年 09 月 24 日 114 學年度第 1 次聯合系所務會議通過

Approved at the 1st Joint Council of Department and Institute meeting on September 24, 2025

一、目的

I. Purpose

為提升本系學生專案研究之能力，培養學生探索進階生物科技研究之技能，特訂定本總結性課程實施要點。

These guidelines are formulated to enhance students' ability to conduct project-based research and cultivate their skills in advanced biotechnology research through the Capstone Course (hereinafter referred to as the "course").

二、適用對象與方式

II. Applicable Students and Implementation Method

本系大學部學生適用，於總結性課程修業期間以個人專題研究方式實施。

These guidelines shall apply to undergraduate students of the Department of Biomedical Science and Technology (hereinafter referred to as the "Department"), and the course shall be conducted through individual research projects.

三、專題研究室分發程序

III. Procedures for Research Laboratory Assignment

為使修業學生進入合適之專業研究室進行總結性課程研修，採以下程序媒合學生與教師：

To ensure that students are assigned to appropriate professional laboratories for the course studies, the following procedures shall be adopted for matching students with the faculty:

(一)教師研究分享

(1) faculty research presentations

由本課程授課教師於二年級上學期第 1 週至第 8 週間，安排有意指導專題研究之教師，於課堂上進行實驗室研究內容分享。

During Weeks 1 to 8 of the Fall semester in the sophomore year, the faculty offering the course shall arrange other faculty members willing to supervise research projects to present their laboratory research in classes.

(二)師生晤談

Any dispute over interpretations of these regulations shall be resolved in the court of law based on the Chinese version.

(2) faculty-student interviews

學生了解教師研究方向與專長後，由學生主動洽談至少五位有意願指導專題研究之教師，討論未來研究進行方向與規劃。

After understanding the research fields and areas of expertise of the faculty, students shall proactively consult with at least five faculty members willing to supervise research projects to discuss future research directions and project plans.

(三)志願填寫與媒合

(3) preference submission and matching process

學生須於第 13 週前繳回晤談紀錄單暨指導教授同意單，並由所選指導教授簽名核實。

Students shall submit their *Research Project Interview Record and Advisor Consent Form* by Week 13, which shall be signed by their selected advisor.

(四)媒合結果公告

(4) announcement of matching results

1. 媒合結果於第 16 週公告於系網頁或公告欄後，學生依各研究室規定進行專題研究。
 - i. The matching results shall be announced in Week 16 on the Department website or bulletin board; students shall thereafter conduct their research project in accordance with the provisions of their assigned laboratory
2. 媒合結果公告後，如學生因特殊情形需更換指導教師，則須取得原指導教師與轉入研究室之指導教師同意後，方得更換。
 - ii. After the announcement of the matching results, students who need to change their advisor due to special circumstances may do so only with the consent of both the original and the new advisors.

四、專題研究時程規劃

IV. Research Project Timeframe

學生於本課程修業期間，須於大二下學期進入實驗室進行基本能力訓練與閱讀相關文獻，探索研究主題並進行實驗資料收集，並於大三上學期結束前完成一份研究計畫書，並於時程內提送國科會大專生研究計畫後，進行專題研究。學生需於大三下學期於公開場合進行進度報告，並於大四上學期於專題成果發表競賽中，進行個人專案成果發表。

Students taking the course shall enter their assigned laboratory in the Spring semester of the sophomore year to receive basic skills training, review relevant literature, explore research topics, and collect experimental data. By the end of the Fall semester of the junior year, a research proposal shall be completed to proceed with the research project, with the *College/University Student Research* submitted to the National Science and Technology Council within the stipulated

timeframe. During the Spring semester of the junior year, a progress report shall be presented in public. During the Fall semester of the senior year, the results of their individual projects shall be presented in the Capstone Project Presentation Competition.

五、各階段評分標準與方式

V. Evaluation Criteria and Methods for Each Stage

	大三 上學期 Fall semester of junior year	大三 下學期 Spring semester of junior year	大四 上學期 Fall semester of senior year
評分 項目與比例 evaluation items and weighting	- 研究計畫書: research proposal: 50% - 學生研究 學習表現: student research performance and learning attitude: 50%	- 進度書面報告: written progress report: 40% - 成果口頭報告: oral presentation of research results: 60%	- 專題成果展 Capstone Project Presentation Competition : 50% - 成果書面報告 written final report: 50%

- 本課程屬全英語授課之課程，學生口頭報告之簡報須以全英方式製作，以英文發表可加分。

This course is conducted entirely in English; presentation slides for oral presentation shall also be prepared in English, with bonus points awarded for oral presentations delivered in English.

- 專題研究展成績優異者，於成果展後取成績前三名與佳作數名頒發獎狀以資鼓勵。

Students with outstanding performance in the Capstone Project Presentation Competition shall each be awarded a certificate after the event, including those ranked among the top three and those receiving honorable mentions.

六、未盡事宜處置

VI. Supplementary Provisions

本實施要點未盡之事宜，由本系聯合課程委員會討論並決議處置方式。

Matters not covered in these guidelines shall be discussed and resolved by the Joint Curriculum Committee of Department.