

中原大學電機資訊學院學士班總結性課程實施要點

Chung Yuan Christian University

Directions for the Implementation of Capstone Courses in the Undergraduate Program in College of Electrical Engineering and Computer Science

102.12.4 電機資訊學院 102-1-3 院課程委員會通過

103.6.24 102-2-3 課程委員會會議修正

103.7.7 102-2-3 班務會議修正

Adopted at the 102-1-3 College Curriculum Committee Meeting of the College of Electrical Engineering and Computer Science on December 4 2013

Amendment adopted at the 102-2-3 College Curriculum Committee Meeting of the College of Electrical Engineering and Computer Science on June 24, 2014

Amendment adopted at the 102-2-3 Program Affairs Meeting on July 7, 2014

第一條 依據學生學習成效促進辦法第五條，各系（所、學位學程）應於學生修業期間實施總結性評量，以瞭解學生修業期間整體學習成效，特訂定本班總結性課程實施要點（以下簡稱本要點）。

Article 1 In accordance with Article 5 of the Regulations for Student Learning Outcome Promotion, each department (institute, degree program) shall implement summative assessments during the students' study period to evaluate their overall learning outcomes. These Directions for the Implementation of Capstone Courses (hereinafter "these Directions") are therefore established for the Undergraduate Program.

第二條 專責單位：學生學習成效評量委員會

Article 2 Responsible Unit: Student Learning Outcome Assessment Committee

一、委員會成員由本班課程委員會委員組成。

1. The Assessment Committee shall be composed of members of the Program's Curriculum Committee.

二、主要職責：

2. Main Responsibilities:

(一)依據本班學生基本素養與核心能力，規畫及辦理本班學生學習成效之總結性課程。

(1) Planning and conducting the course to assess student learning outcomes based on the Program's basic literacy and core competencies.

(二)每學年定期分析總結性課程之成效，彙整總結性課程實施成果報告書。

(2) Analyzing the effectiveness of the capstone course and compiling a report on its implementation results every academic year.

(三)運用分析結果，每學年定期檢討並修定總結性課程評量機制。修訂後之評量機制送班務會議核定後實施。

(3) Reviewing and revising the summative assessment mechanism every academic year using the analysis result. The revised assessment mechanism must be approved by the Program Affairs Meeting before implementation.

第三條 依據本班教育目標、學生基本素養與核心能力（簡稱能力指標），訂定總結性課程之學習成效指標。針對每項能力指標，由學生學習成效委員會共同討論設定 2-4 項學習成效指標，以利進行總結性課程之成效評量。

Article 3 Learning outcome indicators for the capstone course are established Based on the program's educational objectives and students' basic literacy and core capabilities (hereinafter "competency indicators"). For each competency indicator, the Student Learning Outcome Committee shall collaboratively discuss and set 2-4 learning outcome indicators to assess the effectiveness of the capstone course.

第四條 本班總結性課程之規劃：

Article 4 Planning of the Capstone Course for the Program:

一、總結性課程修讀規定：本班 103 年度以後(含)入學學生在所有核心課程完成後，於在學期間必

須修讀本班必修課程「專題研究(一)」及「專題研究(二)」共計2學分，學生成績需為60分(含)以上通過。

1. Course Requirements: For students entering the program in Academic Year 103 and beyond, they must complete the required courses “Individual Studies (I)” and “Individual Studies (II)” (2 credits in total) during their period of studies after completing all core courses. The minimum passing grade for these courses is 60.
- 二、學生依個人興趣從兩個主修學程領域相關的專任教師中，於修課前確定專題指導老師。
2. Students must select a studies advisor from full-time faculty members in their two major tracks according to their interests before the course begins.
- 三、組別、組內人數及題目依指導老師規劃進行之。
3. Group formation, number of members, and topics of studies will be planned by the advisor.
- 四、每位（每組）學生必須在老師指導下產出具體成果，否則即視為未達畢業資格。
4. Each student (or group) must produce tangible results under the guidance of the advisor. Failure to do so will be considered as not meeting graduation qualifications.
- 五、書面報告格式、報告繳交日程依各系辦法或公告辦理。
5. The format for the written report and submission deadlines shall be handled according to Department regulations or announcements.
- 六、總結性課程須邀請實務界專業人士參與。
6. Professionals from industry shall be engaged in the capstone course.

第五條 總結性課程評量範圍及評量方式：

Article 5 Scope and Evaluation Methods of Capstone Courses:

一、本班學生依據電機資訊學院學士班之評量標準評定學生成績。

1. Student grades will be evaluated according to the assessment standards for the Undergraduate Program in the College of Electrical Engineering and Computer Science.
- 二、總結性課程採多元評量方法考核學生核心能力與各項學習成效指標的達成度，評量標準應已具體緊扣本班八大核心能力及各項學習成效指標，為提高評量之客觀性與準確性，應針對各項學習成效指標訂定明確的總結性課程之「專題研究」評分規準表，進行學生表現之評量，此表需已為學生所理解並接受，並經本班學習成效評量委員會審核通過。
2. The capstone course adopts a variety of assessment methods to evaluate students' core competencies and achievement of learning outcome indicators. The assessment standards shall align with the Program's eight core competencies and learning outcome indicators. To improve the objectivity and accuracy of the assessment, clear scoring criteria for the “Individual Studies” in the capstone course will be set for each learning outcome indicator. These criteria must be understood and accepted by students and reviewed and approved by the Student Learning Outcome Assessment Committee.
- 三、總結性課程-「專題研究」評量方式依據學生指導老師所屬學系總結性課程之評量方式評定之。
3. The assessment for the “Individual Studies” in the capstone course will be based on the evaluation method used by the department to which the advisor belongs.

四、總結性課程之成績評量由三位(含)以上評分者共同進行，評分者須至少有一位為實務界專業人士。

4. Evaluation of the capstone course will involve three or more evaluators, with at least one being a professional from the industry.

第六條 本班網站首頁將設置「總結性課程評量」超連結專區，提供評量範圍等相關資訊，作為受評學生準備之參考，並於評量後在網站專區呈現總結性評量成果的統計分析報表，作為檢討課程、教學與學習輔導之參考。

Article 6 A special section for “Capstone Course Evaluation” will be set up on the Program website, providing relevant information such as the scope of evaluation as a reference for students under assessment. After the assessment, a statistical analysis report on the results will be posted in this section for reviewing the course, teaching, and learning support.

第七條 輔導措施：

Article 7 Counseling Measures:

未通過檢核的學生，由學習成效委員會與指導老師共同擬訂輔導方案，包括修課建議、學習輔導等。

For students who do not pass the assessment, the Student Learning Outcome Assessment Committee and the advisor will jointly develop a counseling plan, which may include course recommendations, learning counseling, etc.

第八條 檢核機制的檢討與修訂：學習成效委員會須每學年定期分析總結性課程之成效，選寫總結性課程實施成果報告書。

Article 8 Review and Revision of the Evaluation Mechanism: The Student Learning Outcome Assessment Committee must analyze the effectiveness of the capstone course annually and compile a report on the course implementation results.

一、總結性課程實施成果報告書須包括：

1. The capstone course implementation report shall include:

(一) 該學年度學習成效檢核結果。

(1) Learning outcome assessment results for the academic year.

(二) 不合格學生輔導記錄。

(2) Records for the counseling of students who did not pass.

(三) 執行現況檢討與修訂提案。

(3) Review of current practices and revision proposals.

二、於每年3月份的班務會議中提報討論與修訂，並經班務會議核定後實施。

2. The report will be discussed and revised at the Program Affairs Meeting in March each year, and such revision will be implemented after approval by the Program Affairs Meeting.

第九條 本要點經本班課程委員會、班務會議及院課程委員會通過後實施，修正時亦同。

Article 9 These Directions will be implemented after approval by the Program's Curriculum Committee, the Program Affairs Meeting, and the College Curriculum Committee; the same shall apply to any amendments thereto.