

國立陽明交通大學半導體跨域學程實施要點

National Yang Ming Chiao Tung University Implementation Guidelines for Semiconductor Cross-Disciplinary Program

114年3月25日 半導體跨域學程工作小組會議通過
114年4月7日 113學年度第3次跨院學程推展辦公室課程委員會議通過
114年5月12日 113學年度第3次校級課程委員會議通過
115年4月1日 114學年度第5次學士後電子與光子學士學位學程課程委員會議通過
115年4月14日 114學年度第5次跨院學程推展辦公室課程委員會議通過
115年5月14日 114學年度第4次校級課程委員會議通過

一、依據國立陽明交通大學（以下簡稱本校）跨域學程實施辦法，本校學士後電子與光子學士學位學程（以下簡稱本學程）為鼓勵學生進行跨領域學習，建立跨域學習深度，協助學生拓展第二專長，提供學生可以在畢業學分不增加（或僅少量增加）情況下，修畢半導體跨域學程（以下簡稱本跨域學程），特訂定本實施要點。

1. These guidelines are prescribed by the Electronics and Photonics Post-undergraduate Second Degree Program (hereinafter referred to as "EPPS") of National Yang Ming Chiao Tung University (hereinafter referred to as "NYCU") in accordance with the NYCU Cross-Disciplinary Program Implementation Regulations. These guidelines provide the opportunity for students to pursue cross-disciplinary learning without increasing graduation credits (or only a few extra credits), encouraging students to engage in semiconductor cross-disciplinary study (hereinafter referred to as "the Program"), deepening their cross-disciplinary expertise, and assisting students in expanding a second specialty.

二、本要點適用對象為就讀本校學士班且非本學程之學生。申請修習本跨域學程為其跨域專長者，應於修習前，在每學年度公告之申請期限內向所屬學系（以下簡稱原系）提出申請，經原系及本學程雙方審查通過後，取得修習資格。其修課內容應包含：

- （一）校共同必修課程；
- （二）原系必修及選修課程（含原系跨域模組課程）；
- （三）本跨域學程必修科目表課程。

學生完成原系畢業應修課程及學分數，並符合本跨域學程修課規定者，始可於畢業證書原系名稱後加註半導體跨域專長。

2. These Guidelines apply to undergraduate students of NYCU who are not primarily enrolled in EPPS. Students seeking to pursue the Program as their cross-disciplinary specialty must apply for admission through their original department within the designated application period announced each academic year prior to beginning their studies. Enrollment in the Program is permitted only after the application has been reviewed and approved by both the original department and EPPS, thereby granting the student eligibility. The required curriculum shall comprise:

- (1) NYCU General Education/Core Requirements;
- (2) Compulsory and elective courses of the original department (including its cross-disciplinary module courses);
- (3) Courses listed in the required course table of the Program.

Students who have completed the required courses and credits for graduation from their original department and fulfilled the requirements of the Program shall have 'Semiconductor Cross-Disciplinary Specialty' noted on their diplomas after the name of the original department.

三、本跨域學程課程與學生原系應修課程及學分重複者，由本學程指定與專長相關選修課程補足之；修讀本跨域學程學生於申請通過前已修習及格之課程學分，符合本跨域學程應修課程學分者，得經本學程審查同意後，予以採認。

3. In cases where courses and credits of the Program overlap with those required by the student's original department, the deficiency shall be offset by elective courses related to the specialty as designated by the EPPS. For students who have successfully completed relevant courses prior to their admission to the Program, such credits may be recognized upon review and approval by the EPPS.

四、本跨域學程置召集人一人，由本學程主任或其指定之專任教師擔任；另由召集人指定一名專任教師擔任本跨域學程導師，專責輔導本跨域學程之學生。

4. The Program shall have one Coordinator, served by the Director of EPPS or a full-time faculty member designated by the Director. Additionally, the Coordinator shall designate a full-time faculty member to serve as the Program Mentor, responsible for advising and guiding the students within the Program.

五、本要點如有未盡事宜，依本校學則及其他相關規定辦理。

5. If there is any unaccomplished matter of these guidelines, it shall be handled in accordance with the school constitution of our university as well as other relevant regulations.

六、本要點經校級課程委員會通過後實施，修訂時亦同。

6. These guidelines are approved by the NYCU Curriculum Committee before putting it into practice, and shall do the same upon any amendment thereto.

國立陽明交通大學半導體跨域學程必修科目表
The Required Courses List of Semiconductor Cross-Disciplinary Program

課程類別 Category	科目名稱 Course	學分 Credit
必修 (12學分) Required course (12 credits)	電子學 (一) Electronics (1)	3
	電磁學 (一) Electromagnetics (1)	3
	近代物理 Modern Physics	3
	半導體物理與元件 Semiconductor Physics and Device	3
專業選修 (19學分) Elective Courses (19 credits)	半導體製程 Semiconductor Processing	3
	電路學 Circuit Theory	3
	電磁學 (二) Electromagnetics (2)	3
	光電子學 Optoelectronics	3
	工程統計 Engineering Statistics	3
	固態物理導論 Introduction to Solid-State Physics	3
	電子構裝技術 Electronic Packaging Technology for Electronics	3
	量子力學 Quantum Mechanics	3
	材料科學導論 Introduction to Materials Science	3
	計算機概論 Introduction to Computer Science	3
	機器學習 Machine Learning	3
	半導體實務 Semiconductor Engineering Practice	1
總學分：31學分 Total Credits：31 Credits		