

國立陽明交通大學智慧計算與科技研究所智慧物聯網產業碩士專班修業要點

National Yang Ming Chiao Tung University (NYCU)

Master's Degree Regulations for the Institute of Intelligent Internet of Things

- 113.04.02 112學年度智慧科學暨綠能學院院務會議第8次會議暨智慧計算與科技研究所、智慧系統與應用研究所及智慧與綠能產學研究所第2次暨智慧物聯網產學碩士專班研究所第1次聯席所務會議通過
- 113.04.15 智慧科學暨綠能學院112學年第8次院課程委員會會議暨智慧計算與科技研究所、智慧系統與應用研究所及智慧與綠能產學研究所第2次暨智慧物聯網產學碩士專班研究所第1次聯席課程籌備委員會會議議程通過
- 113.05.20 國立陽明交通大學112學年度第3次課程委員會通過
- 115.03.26 114學年度智慧科學暨綠能學院院務會議第7次會議暨智慧計算與科技研究所、智慧系統與應用研究所及智慧與綠能產學研究所第1次暨智慧物聯網產學碩士專班研究所第1次聯席所務會議通過
- 115.04.16 智慧科學暨綠能學院114學年第3次院課程委員會會議暨智慧計算與科技研究所、智慧系統與應用研究所及智慧與綠能產學研究所第3次暨智慧物聯網產學碩士專班研究所第1次聯席課程籌備委員會會議議程通過
- 115.05.14 國立陽明交通大學114學年度第4次課程委員會通過

第一條 國立陽明交通大學智慧科學暨綠能學院智慧計算與科技研究所（以下簡稱本所）智慧物聯網產業碩士專班（以下簡稱本班）為規範本班研究生修業事項，依據「國立陽明交通大學研究生學位授予作業規章」以及相關規定，特訂定本修業要點。

The graduate program of Intelligent Internet of Things (hereinafter referred to as the program) at the College of Artificial Intelligence, Institute of Computational Intelligence (hereinafter referred to as the institute), National Yang Ming Chiao Tung University (NYCU) sets the following program regulations for master's students in compliance with the NYCU Regulations for Master's and Doctoral Degrees Conferment and relevant guidelines.

第二條 入學資格：

Admission requirements:

- 一、 公立或立案之私立大學或獨立學院或經教育部認可之外國大學各學系畢業具有學士學位、應屆畢業或具有同等學力之資格，經本班碩士班研究生入學考試通過者，得進入本班修讀碩士學位。

Applicants who are graduating students or who hold a bachelor's degree or equivalent from public universities, registered private universities, independent academies, or foreign academic institutions recognized by the Ministry of Education (MOE) of the Republic of China are eligible to take the Graduate Student Entrance Exam of the graduate program of Intelligent Internet of Things to enroll in the graduate program.

- 二、 新生因重病或接獲兵役單位徵集令，不能按時入學者經檢具有關證明於註冊前申述理由，向本校申請保留入學資格並獲准者，得延後進入本所修讀碩士學位。

Newly admitted students to the graduate program who are unable to enroll in the designated semester due to serious illness or military service obligations may apply for delayed enrollment by presenting relevant documentation before the registration deadline. The application is subject to the university's approval.

第三條 修業年限：一般生二至四年。

Period of study: two to four years for full-time students.

第四條 修課規定：

Program requirements:

- 一、 新生入學時必須繳交大學部成績單，由本班規定之委員會審查。

Prior to enrollment, a fresh graduate student must submit his undergraduate transcript to a designated committee for examination.

- 二、 畢業前須修讀通過機器學習(3學分)、深度學習 (3學分)、物聯網應用與實作(3學分)，任選其中兩門課程，共計6學分。

Students must complete and pass courses in Machine Learning (3 credits), Deep Learning (3 credits), and Design and Implementation of IoT applications (3 credits). Among these, they must select two courses, totaling 6 credits., before

graduation.

- 三、 畢業前須修讀通過二學期『專題研討』課程，每學期1學分，共計2學分。
Students must pass two Seminar courses, 1 credit per semester, 2 credits in total, before graduation.
- 四、 畢業前須修讀通過二學期『論文研究』課程，每學期1學分，共計2學分。
Students must pass two courses of Thesis Research, 1 credit per semester, 2 credits in total, before graduation.
- 五、 畢業前須修讀通過『業界實習』課程，共計2學分。
Students must pass of Industry Internships, 2 credits in total, before graduation.
- 六、 為確保學生於修業後期仍持續參與課程學習與學術交流，學生於第三或第四學期，至少須再修讀並通過一門本班開設之專業課程(3學分)，且該學分應計入本要點第四條第七項所規定之專業課程學分內。該課程不得為「論文研究」或「專題研討」課程。
To ensure students remain engaged in coursework and academic activities during the later stage of their studies, each student must complete and pass at least one additional professional course (3 credits) offered by the program in the third or fourth semester. These credits shall be counted toward the professional course credits specified in Article 4, Paragraph 7. This course shall not be “Thesis Research,” or “Seminar.”
- 七、 除本要點第四條第二項所提之必修課程、『專題研討』、『論文研究』及『業界實習』課程之外，至少須修滿十八學分，其中至少十二學分須修讀本班所開設之專業課程，另六學分可選修本院開設之專業課程，但須於選課截止前填寫『產碩專班碩士生修習本院(非本班)專業課程申請書』，經指導教授同意並經所長(班主任)認可後方得計入畢業學分，逾期一概不受理。
In addition to the compulsory courses specified in Article 4, Paragraph 2 of these regulations, as well as the "Seminar", "Thesis Research" and "Industry Internships", students must complete 18 credits, of which at least 12 must come from specialized courses offered within the institute. For the remaining credits, at most 6, students can take professional courses offered within the College. In this case, students must complete the “Application Form for Master’s students to take courses in the college (which are not offered in the program)” before the deadline of course enrollment, and the application must be approved by the thesis advisor and then by the Director of the program, for the credits to be accepted as part of the graduation credits.
- 八、 碩士生入學後，第一學期須至「臺灣學術倫理教育資源中心」平台修習「學術研究倫理教育課程」及「性別平等教育線上訓練課程」。修業期間未通過總測驗之學生，不得申請學位考試。
Students should register in the course of “Academic Research Ethics Education” and “Gender Equity Education Online Training” during their first semester. Students who don’t pass the final assessment of the course can’t apply for their degree exam.
- 九、 未於修業期限內通過學位考試或未能完成應修課程者，應令退學。
Students who do not pass the degree oral examination or fulfill the credit requirements within the study period shall be dismissed from the program.

第五條 學分抵免：

Credit exemption:

- 一、 本班學生於入學前五年內所選修之學分得申請抵免，需於入學後第一學期開學前提

出。

Master's students of the program may apply for credit exemption for credits that are obtained within five years before the deadline of commencement of the first semester after enrollment.

- 二、 學分抵免申請須經本班主任同意，方得抵免。因故逾期申請者，則另需經本班規定之會議同意。

Credit exemption must be approved by the Director of the program. Late application is subject to review by relevant committee of the program.

- 三、 本班相關會議依下列方式審核學分抵免申請：

The program shall review the applications in accordance with the following guidelines:

- (一)、 不列為大學畢業學分之本院研究所課程成績達B(含)以上，且未超過抵免學分上限者，可以申請抵免。

Exemption application shall be approved for courses taken in the institutes of the College with a score of B and above if the courses do not count toward the graduation credit requirement for the bachelor's degree nor exceed the maximum number of credit exemption.

- (二)、 選修本校其他學院研究所且符合本班專長之課程達B以上，且不列為大學畢業學分者，得申請抵免。

Application for exemption may be considered for graduate courses taken in other graduate institutes at NYCU with a score of B and above if the courses meet to the educational goals of this institute and do not count toward the graduation credit requirement for the bachelor's degree.

- (三)、 選修符合本班專長之國外研究所課程達相當等級以上，且不列為大學畢業學分者，得申請抵免。

Application for exemption may be considered for graduate courses taken in foreign academic institutions if the courses meet to the educational goals of this program and do not count toward the graduation credit requirement for the bachelor's degree.

- (四)、 申請抵免學分以六學分為限，其中本院以外之其他研究所選修學分以三學分為限。

The maximum number of exemption credits is 6, of which up to 3 may come from graduate courses taken in other colleges.

- (五)、 申請抵免學分時須繳交下列各項資料：申請表一份；不列為大學畢業學分證明一份(申請入學前選修學分抵免者需準備)；成績單一份；其他有利審查之資料，如課號、任課老師、課程內容教材綱要等(如為本班課程則不需要)。

Required documents for credit exemption: An application form; a statement specifying that the credits have not been counted toward the graduation credit requirements for the bachelor's degree. Students who apply before enrolling in the program should prepare a transcript, other supporting documents, such as the course number, name of the instructor, textbooks and syllabus (not needed if the courses are offered by the Institute).

第六條 論文指導：

Thesis advisor:

- 一、 碩士生應於入學後三十日內提出『論文指導教授同意書』，由本班規定之委員會審核同意。

Master's students must submit the Thesis Advisor Consent Form within 30 days of enrollment for the review and approval of the relevant committee of the Institute.

- 二、 碩士論文及個別研究指導教授以本班專任助理教授(含)以上教師擔任為原則，特殊狀況須經書面向本班提出申請並獲同意。

The advisor for a student taking the course of thesis or individual study must be a

full-time faculty member of the Institute who is an assistant professor or above; any exception must be made in writing application to the program for review and approval.

- 三、 若獲同意選定外系教師擔任指導教授，則必須有本班專任助理教授(含)以上教師共同指導。

If the advisor is not a faculty member of the Institute, the student shall be jointly supervised by an assistant professor or above from the program.

- 四、 如欲變更論文指導教授，應填具申請書說明理由，經由原、新指導教授同意，並經班務委員會審查通過。若原指導教授因故不予同意，則由班務委員會召集人召集會議審查議決之。

To change the thesis advisor, students must complete the relevant application form. The application must be approved by both the original advisor and the prospective advisor before being reviewed by the affairs committee of the program. If consent is not given by the original advisor for any reason, the convener of the affairs committee should conduct a meeting to form a resolution.

第七條

碩士學位論文與論文口試：

Oral defense for the master's degree:

- 一、 每位研究生必須選擇與人工智慧、物聯網跨域應用產業技術相關之題目進行碩士學位論文撰寫。

Each graduate student must choose a topic related to cross-domain applications of artificial intelligence and the Internet of Things for their master's thesis writing.

- 二、 口試日期二周前需繳交碩士論文初稿，始得進行口試。

The draft of the thesis must be submitted two weeks prior to the oral defense.

- 三、 舉行學位考試之學生應完成「論文原創性比對」，供學位考試委員參考。

Any student who conducts the oral defense shall first complete the "thesis originality check" and submit the result to the members of the oral defense committee.

- 四、 碩士學位論文(含摘要)須符合「國立陽明交通大學學位論文格式規範」。修改後之論文定稿應完成論文原創性比對報告並經指導教授確認。學位考試通過後應將論文摘要及全文電子檔上網建檔(依照「國立陽明交通大學圖書館學位論文摘要及全文電子檔建檔規範」辦理)，並繳交論文三冊(一冊本校圖書館陳列，一冊由教務處彙轉教育部指定之度藏單位收藏，一冊由本班留存)，始得辦理離校手續。

The thesis (and the abstract) should comply with the NYCU Thesis and Dissertation Formats. After the oral defense, the finalized thesis should be completed the "thesis originality check" and the "thesis originality check" should be approved by the original advisor. Students should post an electronic version of the abstract and thesis on the university website after passing the oral defense. (See the NYCU Library Abstract, Thesis and Dissertation Electronization Specification for details); students must also submit three copies of the thesis (one for display in the library, one submitted to the Office of Academic Affairs for transmission to appropriate archival units as specified by the MOE, and one archived in the institute) before starting the school leaving procedure.

- 五、 碩士學位考試委員會置委員三至五人(其中院外委員至少乙位)，由本班就校內外學者專家中對該研究生之研究領域有專門研究，並具備下列資格之一者，向校長推薦，由校長遴聘組成之。

The President of NYCU will select three to five members to form a committee for the master's degree oral defense from amidst the scholars and experts recommended by the program (at least one member should be from other college). The committee members, whether from NYCU or an external organization must specialize in the area of research or study of the candidate and fulfill at least one of the following requirements.

- (一)、 現任或曾任教授、副教授、助理教授。

Is or was a professor, associate professor, or assistant professor.

(二)、 中央研究院院士、現任或曾任中央研究院研究員、副研究員、助研究員。
Is a research fellow, or is or was a researcher, associate researcher, or assistant researcher of Academia Sinica.

(三)、 獲有博士學位，且在學術上著有成就。
Holds a doctoral degree, and has outstanding academic achievements.

(四)、 研究領域屬於稀少性、特殊性學科或屬專業實務，且在學術上或專業上著有成就。

Has been researching in a rare, specific, or practical field, and has outstanding academic or professional achievements.

前述第(三)點及第(四)點之提聘資格認定標準，由本所規定之委員會訂定之。

The criteria for the qualifications of the persons mentioned in Items (3) and (4) will be determined by a relevant committee of the Institute.

碩士班研究生之配偶或三親等內之血親、姻親，不得擔任其碩士學位考試委員。

The spouse, blood relations and in-laws of the candidate within the third degree may not serve on the oral defense committee.

六、 學位考試以口試行之，並依下列規定辦理：

The thesis defense should be made orally according to the following rules:

(一)、 口試以公開舉行為原則，須於事前公佈口試時間、地點及論文題目。

All oral defenses must be conducted openly. The time and place of the oral defense and the title of the thesis must be announced in advance.

(二)、 學位考試委員應親自出席學位口試，不得委託他人代理。碩士學位考試委員會至少應有委員三人出席，始得舉行。

All members of the oral defense committee must attend the oral defense in person; proxies are not permitted. An oral defense for the master's degree should only take place when attended by at least three committee members.

(三)、 情形特殊，口試委員方得採視訊方式出席口試，惟仍應符合公平公正公開之原則，並全程錄音錄影存檔留存本所，相關檔案經本班主任同意方得調閱。
For particular case, the process may be conducted by means of video conference, provided that the rules of fairness, impartiality, and openness shall be observed, and the process is videotaped and kept by each such teaching institute. Access to relevant files can be granted only upon the consent of the supervisor of the Director of the program.

(四)、 學位考試委員會，由本班指定委員一人為召集人，指導教授不得兼任召集人。

The program will appoint a committee member as the convener of the oral defense committee. The adviser of the candidate may not serve as the convener.

(五)、 學位考試成績，以B-為及格，A+為滿分，評定以一次為限，並以出席委員評定分數平均決定之。但碩士學位考試有二分之一以上出席委員評定不及格者，以不及格論，不予平均。

The passing grade and full marks of the oral defense are B- and A+, respectively. There should be one single evaluation based on the average of the scores given by the members present. Nonetheless, when the scores given by half or more of the members present are below the passing grade, the master's candidate is deemed failed, and no average score shall be calculated.

(六)、 論文有造假、變造、抄襲、由他人代寫或其他舞弊情事，經學位考試委員會審查確定者，學位考試成績以零分登錄且不得重考。

The candidate is deemed failed when plagiarism or cheating is discovered

in the thesis and subsequently verified to be true by the oral defense committee. The grade of the oral defense is 0. And students have no chance to retake.

- 七、 學位考試不通過，得於次學期或次學年申請重考，重考以一次為限，重考不及格者，即令退學。

Candidates who fail the oral defense may apply to retake the oral defense once in the following semester or the following academic year. Candidates who fail a second time will be dismissed from the program.

- 八、 學位論文口試相關規定皆依國立陽明交通大學研究生學位授予作業規章辦理。

Students can pass the oral defense according to the regulation of master and doctoral degrees conferment of NYCU.

- 第八條 本校對已授予之碩士學位，如發現論文有抄襲或舞弊情事，經調查屬實者，則撤銷其學位，並追繳已發之學位證書。

In the event that plagiarism or cheating is discovered in the thesis and subsequently verified to be true, NYCU will revoke the degree conferred and request the student to return the certificate issued.

- 第九條 轉系所：

依國立陽明交通大學學生轉系所辦法辦理。

College transfer:

Students can be transferred to the college according to the regulation of Department/College Transfer of NYCU.

- 第十條 修訂及實施：

Revision and implementation:

- 一、 本修業要點修訂時由本班所務會議通過，經智慧科學暨綠能學院課程委員會及校課程委員會審查通過後施行之，修正時亦同。

Revisions of the program regulations are passed at the Institute Affairs Meeting, reviewed by the course committees at the College of Artificial Intelligence and Green Energy and the University levels, and submitted for approval at an Academic Affairs Meeting.

- 二、 其他未盡之事宜，悉依學校規定。

Matters not mentioned herein shall be governed by relevant NYCU regulations.

本法規有中英文兩個版本，在有疑義的情況下以中文版為準。

The Regulations were drawn up in Chinese and translated into English. In the event of any discrepancy between the two versions, the original Chinese version shall prevail.