

國立清華大學 「環境科技博士學位學程(台灣聯合大學系統)」 修業辦法
Academic Regulation for
International Ph.D. Program in Environmental Science and Technology
(University System of Taiwan) at National Tsing Hua University

中華民國 109 年 2 月 20 日 108 學年度第七次所務會議通過

中華民國 109 年 7 月 6 日 108 學年度第十三次所務會議修正通過

1. 適用對象：109 學年度(含)後入學學生

The regulation is Applicable for admission students in 2020 school year

2. 入學資格 **Admission**

符合教育部訂定之「外國學生來臺就學辦法」及「國立清華大學外國學生入學辦法」之國內外大學應屆外籍生或已畢業且具有碩士學位以上之外籍生，得透過申請程序進入本學程博士班修讀博士學位。

In accordance with the Ministry of Education Regulations Regarding International Students Undertaking Studies in Taiwan and the NTHU Regulations for Admission of International Students to Degree Programs and Credit Course Selection, international students who are expecting or who hold a master's degree or above from a domestic or foreign institution may apply for this doctoral degree program.

3. 學分制度 **Credits**

(1) 最低畢業學分：至少應修畢 24 學分，包括專業必修課程 6 學分，一般必修課程 6 學分，及選修課程 12 學分。以上所有課程學分必須為 4 (含) 字頭以上課程，唯 4 字頭課程以二門為限，學程特殊需求者得申請抵免。

Minimum Credits Requirement for Graduation: 24 credits including 6 credits of compulsory specialty courses, 6 credits of compulsory common courses, and 12 credits of elective courses. All aforesaid credits must be completed and took from course codes starting with 4 (included) or above, and only allowed to take 2 courses of codes starting with 4. For students with specialized curriculum, they can apply for the credit transfer.

(2) 博士班學生，均須於入學第一學年結束前修習研究倫理教育課程。本課程採網路教學方式實施，為 0 學分之必修課程。凡修習本課程之學分，需通過課程測驗成績達及格標準；未通過者，不得申請專長科目口試。

Students should complete the course of “research ethics education course” before the end of the first school year. This course is offered in a network teaching model and a 0 credit of compulsory course. Those who attend this course credit, need to pass test at the exam. Fails, can't apply for specialty subject oral examination.

(3) 除前述規定外，剩餘之學分只要符合學校規定，學生可從所內或所外課程中選修研究領域相關課程，唯建議同學在選課前與指導教授先行討論。其他修課及

學位相關規定，請參照『國立清華大學教務章則彙編』。

As to the remained credits, as long as complying with NTHU regulations, students are able to select and study related courses from AES or other departments, and this Department suggests that students discuss with their advisors prior to select courses. For other requirements for courses or academic degrees, please refer to "NTHU Regulations of Academic Affairs".

4. 課程要求 Course Requirements

(1) 專業必修科目：環境科學與技術特論、環境污染與健康風險特論、環境監測與分析特論，(三選二)共六學分。

Compulsory courses: Special Topics on Environmental Science and Technology, Special Topics on Environmental Pollution and Health Risk, Special Topics on Environmental Monitoring and Analysis (2 out of 3). The total is 6 credit hours.

(2) 共同必修科目：博士班專題研究(一)(二)、論文研究、專題演講、專題書報討論，共 6 學分。論文 4 學分，但不列入畢業學分。

Compulsory common courses: Total 6 credits including courses of PhD Graduate Research (I) (II), Colloquium, and Seminar. Another 4 credits of thesis required but not included in graduation credits.

(3) 選修科目：選課範圍以台灣聯大四校當學期公佈之研究所課程表為準(須選修至少 12 學分)。

Elective courses: Based on the graduate curriculum announced each semester at the University System of Taiwan. 12 credits

5. 博士候選人資格考核 Qualifying Exam

(1) 目的：確認該系博士生應具備之論文研究的學識基礎。

Purpose: to confirm the Ph.D. students at Dept. of AES who really possessed the required academic foundation of thesis research.

(2) 資格：該系博士班研究生。

Qualification: graduate students at Dept. of AES who intend to take Ph.D. degree program.

(3) 方式：考試分為必修與選修專長科目，必修專業科目以修課為之，選修專長科目以口試為之。選修專長科目須在必修專長科目及格後方得報考，選修專長科目每人有兩次機會。

Method: examinations will be divided into the compulsory and elective specialty subjects; students will be given courses and credits for compulsory subjects, and the oral defense (exam) for their elective specialty subjects. Students shall discuss with their advisor to select a group courses for their major. For their specialty subjects, students

can apply for the oral defense (exam) after they passed basic subjects; in addition, each student has 2 opportunities of applying for such oral defense (exam) of their specialty subjects.

(4) 專業必修科目課程中必須擇一科修習。

a.三門課程為：環境科學與技術特論、環境污染與健康風險特論、環境分析與監測特論。

Special Topics on Environmental Science and Technology, Special Topics on Environmental Pollution and Health Risk, Special Topics on Environmental Monitoring and Analysis (1 out of 3).

b.三門專業必修科目中，至少一門課通過且成績 A- (80 分)以上

Qualified Standards : 1 of 3 compulsory specialty courses should be passed with a result above A-(80 points).

(5) 專長科目口試細則 **Rules of Oral defense for Specialty Subjects**

a. 專長科目口試細則：各科目口試時間以 1 至 2 小時為原則。

Time of the Oral defense (exam) for individual subject shall be set around 1 to 2 hours in principle.

b. 及格標準

每一位口試委員以無記名方式勾選口試結果：(1)通過(2)不通過，二分之一(含)以上委員勾選通過者口試及格，未達二分之一委員勾選通過者口試不及格。

Every oral defense (exam) committee member will anonymously give scores and decide the result of such exam: (1) Qualified (2) Disqualified; student will be passed such exam if more than 50% (included) of committee members marked on (1) Qualified; on the other hand, less than 50% of committee members marked on (1) Qualified, then the student can be considered as failed such oral defense (exam).

c. 考試內容：參照學生繳交之「個人專長簡介及研究計畫綱要」，作為口試委員發問之參考。

The oral defense (exam) members will be based on the “Introduction to Personal Specialty and Research Plan Outline” that submitted by applying students as the reference to ask questions.

d. 口試委員會組成辦法：口試委員會由系所內外教師 3-5 人組成，由所長於徵詢指導教授意見後聘請組成之，指導教授為當然口試委員，但不得擔任口試委員會召集人。若本所教授專長人數不足時，得聘請所外人士擔任口試委員，惟人數不得超過 2 人。

The oral defense (exam) committee is composed of 3-5 professors (including full-time, part-time and adjunct) unlimited in AES Dept.. After department head requested advisor’s opinion, those professors will then be selected to form this Committee. Advisor is certainly a member of this Committee, but can’t be the convener. If the number of specialty professors is insufficient for this Department, then it can select

qualified personnel from other departments to be the oral defense (exam) members, but 2 persons at most. The oral defense (exam) members shall have at least one full professor.

6. 指導教授 Advisor

- (1) 博士班研究生之指導教授由台灣聯大系統內之兩位教授跨校共同指導為原則，即一位主要指導教授及一位跨校指導教授，直接負責指導該研究生之全程學業輔導，含選課、閱讀、研究實驗、論文撰寫等。

Each doctoral student must have a mutually-agreed-upon primary advisor, who is a current faculty in the University System of Taiwan. Co-advisor is permitted and indeed encouraged. The advisor is responsible for the student's research, including but not limited to the Qualifying Exam, thesis proposal and dissertation, as well as academic progress through the program's other requirement.

- (2) 各研究生之主要指導教授由本學程專任或相關支援系所教師擔任，於入學當學年結束前繳交指導教授選定同意書，選定後未經該指導教授同意不得擅自更換指導教授。

The primary advisor must be the faculty of the program or other supporting departments/institutes at the National Central University. Doctoral students should submit the "Confirmation Form for Thesis Advisor" by the end of first academic year of enrollment. Doctoral students may not change advisor without the original advisor's approval.

7. 畢業要求：論文著作發表。Graduation Requirements(Thesis Publication)

博士班生於論文口試前，應就論文有關之題目，在國外著名學術期刊發表至少兩篇以上論文(被接受將發表，且有適當證明文件者視同發表)，並符合如下規定：

Prior to dissertation defense, doctoral students should publish at least two papers related to their dissertation topics (accepted papers with certification are considered published papers) and must meet the following requirements:

- (1) 每篇論文必須發表在 SCI 某一專業中前 50%(含)或論文影響指數(IF)值總和超過 2.0(含)，學生必須至少有二篇為第一作者，發表的論文必須有本所指導教師名字及學生需署名本所。

Each paper must be published in science citation index (SCI) journals, ranked 50% for a certain field are required, and the sum of impact factors for publications should equal or exceed 2.0. The doctoral candidate must be the first author for at least two publications. An advisor from this department must be one of the co-authors for the publications, which must indicate that the student author is from this department.

- (2) 學生未列第一作者之論文，若列名第二作者且指導教授列名第一作者，可等同為第一作者之論文，但最多以一篇為限。

No more than one publication for which a doctoral student is the second author and his or her advisor is the first author can be considered equivalent to a publication for which the doctoral student is the first author.

- (3) 論文發表經所務會議通過核定。

Paper must be published approved by the AES administration council.

8. 本學程入學學生須依照「國立清華大學外國學生修讀華語課程實施要點」相關規定，修畢華語課程。

In accordance with the Rules of "Mandarin Course Requirements for NTHU International Students", 8 credit hours of Mandarin courses must be completed before graduating.

9. 論文口試

學生合乎口試資格後，經論文指導教授及系主任同意後，得檢具歷年成績單、論文初稿及提要、論文相似度比對報告，及指導教授推薦函一份提出申請表申請，並送請學校核准為博士學位候選人，並於半年內，依本校博士學位考試細則規定，提出擬聘之論文口試委員會名單，經系所主管核定後，由所長提請校長聘請之。

After students obtained the qualification of oral defense (exam), as well as the approval from his or her thesis advisor and department head, he or she can submit an application form with attached the following information, including the transcripts for all semesters; thesis draft and abstract; plagiarism check report;; and 2 letters of recommendation form advisor, to school for its approval of being a Ph.D. candidate. Within 6 months, according to the Rules of Qualifying Examination of Ph.D. Program for NTHU, he or she can submit a member list of the dissertation oral defense (exam) committee, and after certificate review approval, then the department head shall submit this list to the president of NTHU selection and engagement, which will be executed in accordance with related regulations "Regulations of Ph.D. Dissertation Oral Defense (Exam) at Department of Biomedical Engineering & Environmental Sciences, National Tsing Hua University".

10. 如有未盡事宜，悉依本校其他有關規定辦理。

Matters not mentioned herein, if any, should be dealt with according to relevant regulations of the University.

Note: If there is any discrepancy between the English translation and the Chinese original version, the Chinese version shall prevail.