

# Degree Requirements of the Doctoral Program in Science, Technology, Environment, and Mathematics, National Chung Cheng University

Revised and approved on 27 September 2024.

1. **Applicable Objects:** Applicable to doctoral students of the “Doctoral Program in Science, Technology, Environment, and Mathematics” (hereinafter referred to as STEM PhD Program) enrolled in the 2021-2022 academic year. International students can apply for this program in accordance with relevant regulations. If a doctoral student is selected for the Industry-Academia Cooperative PhD Project (IA PhD) supported by the Ministry of Education at the time of enrollment, he/she will be an IA PhD student.
2. **Length of Study Period:** The minimum length of study period for the STEM PhD Program is two years (four years for IA PhD students) and the maximum shall not exceed seven years.
3. **Course Selection:**
  - (1) All courses in the STEM PhD Program are taught in English. Credits earned from courses offered by any departments of the College of Science and of the College of Engineering can be included in the required graduation credits. STEM PhD students (including IA PhD students) must complete at least 18 credits, of which at least 12 credits must be from courses taught in English. Students admitted directly into the Ph.D. program must complete at least 30 credits, of which at least 12 credits must be from courses taught in English, before they can apply for the degree examination.
  - (2) Four credits of the seminar are obligatory among the aforementioned credits; registered dissertation credits are excluded.
  - (3) Approval from one’s advisor(s) must be obtained before taking courses offered by other colleges or departments. Only with the advisor’s approval will the credits be recognized as valid for graduation.
  - (4) According to the “Regulations on Academic Research Ethics Education for Graduate Students of National Chung Cheng University,” STEM PhD students (including IA PhD students) must complete a minimum of 6 hours of academic research ethics courses, and successfully passed the corresponding examination on the Center for Taiwan Academic Research Ethics Education (AREE) online platform no later than the end of the first semester. Those who fail to obtain the certificate of completion will not be allowed to apply for the degree examination.
  - (5) STEM PhD students are eligible to apply for double degree or joint degree with partner institutions. Requirements should abide by the signed agreements and relevant regulations.

4. Advisor(s):

- (1) STEM PhD students (including IA PhD students) should select their advisor(s) before enrollment and submit the signed “Advising Agreement” to the STEM PhD Program Office within two weeks of enrollment. Students are allowed to apply for change of advisor(s) for once in principle.
- (2) Advisors should be full-time faculty members of the College of Science. Cases of the advisors going to other schools or special circumstances approved by the program committee are the exception.

5. Qualifying Examination:

- (1) STEM PhD students should pass the qualifying examination for doctoral candidates within four years of admission (IA PhD students, within three years). Failing to pass the qualifying examination within the prescribed time will lead to the revocation of one’s student status.
- (2) The qualifying examination will be public oral presentation. A proposal should be submitted to the STEM PhD Program seven days prior to the qualifying examination. The oral presentation and the proposal should address and focus on the applicant’s on-going research work and plan for future research.

6. Degree Examination:

- (1) STEM PhD students (including IA PhD students) are eligible to apply for degree examination only after completing the required course credits, obtaining the AREE certificate of completion, passing the doctoral qualifying examination, reaching the required English proficiency level, completing dissertation, and receiving approval from advisor(s).
- (2) A minimum level of competence in English is required before degree examination. The required minimum scores are: 527 on TOEFL ITP, 71 on TOEFL iBT, 5.5 on IELTS, 700 on TOEIC, passing of the first stage of the High-Intermediate Level on GEPT, or achieving CEFR B2 level in any two of the four skills on BESTEP. For those who fail to earn any of the above-mentioned English proficiency test reports, passing of an on-campus English proficiency test or passing of an English-taught academic writing course can be deemed as an alternative. International students from English-speaking countries or countries where English is the official language may apply for an English proficiency test waiver to be approved by the program affairs committee.
- (3) Dissertation must fulfill the following publication requirements that the candidate has at least one research article accepted by SCI journals and is the first author or corresponding author of the said research article.

- (4) In addition to meeting the aforementioned publication requirements, IA PhD students have to propose industry-related and innovative research result and submit any of the following to the Program Office.
  - (a) A copy of a formal patent application
  - (b) A copy of a formal industry-academia cooperative planning
  - (c) A copy of a formal project-based research and development planning
  - (d) Two copies of professional report jointly made by the candidate and the contracted industrial institution.

- (5) Application for the degree examination should be submitted two weeks prior to the oral defense, attached along with the following documents:
  - (a) Application form for dissertation examination
  - (b) Register of the doctoral degree examination committee
  - (c) Official transcripts of all semesters
  - (d) Certificate of a qualified doctoral candidate
  - (e) A plagiarism report with the similarity index below 25% (self-citation can be excluded)

The above-mentioned documents for application should be signed and approved by the advisor(s), Program Office, and supervisors of the relevant units, and submitted to the Division of Curriculum and Instruction within the prescribed time.

- (6) The grade of a student's degree examination is composed of dissertation assessment and oral defense assessment. Students have to attain 70 out of 100 to pass the degree examination. The final grade will be the average of grades given by all the degree examination committee members. However, the student fails if receiving grades below 70 from more than one-third of the committee members.
- (7) Students who fail the degree examination may apply for a retake within one academic year, provided that their study period has not expired. Retake is limited to one time only. Those who fail the retake will lead to the revocation of their student status.
- (8) The doctoral degree examination committee shall have five to nine members. At least one non-CCU member should be included. The advisor(s) cannot be the chairperson of the committee. The number of the committee members other than the advisor(s) shall reach one-half. The degree examination committee of IA PhD shall have five to nine members, inclusive of practitioners or industrial representatives. Non-CCU members (including industrial representatives) shall reach one-third. Industrial representatives must meet the qualifications of the doctoral degree examination committee members set forth by the Ministry of Education.

(9) The doctoral degree examination committee members must have one of the following qualifications:

- (a) Be currently serving or have served as a professor or associate professor;
- (b) Have a doctoral degree and have significant academic achievements;
- (c) Have expertise in an unusual or highly specialized academic area and have achieved significant results in their respective academic or professional field(s).

The criteria for determining the qualifications referred to in the subparagraph (b) and (c) of the preceding paragraph shall be set at the STEM PhD Program affairs committee meeting.

(10) Once a student is found to plagiarize and the fact is confirmed by the degree examination committee, the student will be deemed failed.

7. Degree Conferral: A doctoral candidate who completes their program within the legally prescribed period, has completed the required course credits and satisfied the graduation requirements according to the university's regulation, and passed an examination conducted by a doctoral degree examination committee shall be awarded a doctoral degree.
8. A degree conferred shall be revoked if the thesis or dissertation, work(s), proof of achievement, written report, technical report, or professional practice report contains fabricated, altered, or plagiarized material, was written by someone else, or constitutes some other form of fraud. Once the matter is verified by the school review committee, the awarded degree diploma will be invalidated and should be returned to CCU on request. The offenders cannot continue their study even the study period has not expired.
9. If there are any issues that are not covered by this regulation, it will be handled in accordance with the relevant regulations of the Ministry of Education and National Chung Cheng University. This regulation is implemented after the approval of the program affairs meeting, and it will be the same when revised.

## 國立中正大學跨領域科學國際博士學位學程修業規定

109 年 12 月 3 日	109 學年度第 1 次課程委員會會議修正通過
109 年 12 月 3 日	109 學年度第 2 次學程事務會議通過
110 年 4 月 23 日	109 學年度第 2 次課程委員會會議修正通過
110 年 4 月 23 日	109 學年度第 3 次學程事務會議通過
110 年 10 月 28 日	110 學年度第 1 次課程委員會會議修正通過
110 年 10 月 28 日	110 學年度第 2 次學程事務會議通過
113 年 9 月 27 日	113 學年度第 1 次課程委員會會議修正通過

一、適用對象：110 學年度起入學之「跨領域科學國際博士學位學程」（以下簡稱本學程）博士班研究生適用。外國學生得依相關辦法申請修讀本學程。本學程博士生若於入學時獲教育部產學合作培育博士級研發人才計畫補助，則為產博計畫博士生（以下簡稱產博生）。

二、修業年限：本學程之修業年限，最低二年（產博生最低四年），最高不得超過七年。

三、修課規定：

(一) 本學程之課程全部以英語授課，本學程研究生選修理工學院各學系開設之課程皆得併入畢業學分計算，博士班研究生（含產博生）至少須修滿 18 學分，其中全英語課程至少 12 學分。逕行修讀博士學位之學生，至少須修滿 30 學分，其中全英語課程至少 12 學分，始得申請學位考試。

(二) 前項學分均須包括書報討論必修 4 學分，但不包括學位論文。

(三) 本學程研究生選修其他學院系所之課程，須經指導教授同意，其學分方得併入畢業學分內計算。

(四) 依據「國立中正大學研究生學術倫理教育實施要點」，博士班新生（含產博生）應於入學第一學期結束前，透過「臺灣學術倫理教育資源中心」網路教學平台修習學術倫理教育相關課程達 6 小時以上，並取得修課證明，始得申請學位考試，未通過者不得申請學位考試。

(五) 本學程研究生得申請修讀合作學校之雙聯學位或雙學位，修業依兩校合約及相關規定辦理。

四、指導教授：

(一) 本學程研究生（含產博生）應於入學前選定指導教授，並於入學後二週內繳交指導教授同意書至學程辦公室。修業期間得申請更換指導教授，但以一次為原則。

(二)本學程研究生之指導教授應為理學院之專任教師，惟原指導教授轉調他校或有特殊情形且經學程事務會議同意通過者，不在此限。

#### 五、資格考試：

(一)本學程研究生應於入學後四年內(產博生須於入學後三年內)通過博士資格考試，未於期限內通過資格考試者，應予退學。

(二)資格考試採公開口試，需於資格考口試七日前繳交一份論文計畫書至學程辦公室，口試及論文計畫書內容以博士修業期間之研究成果與未來研究方向為主。

#### 六、學位考試：

(一)本學程博士生(含產博生)於修畢規定之學分數、取得學術倫理教育課程之修課證明、通過博士資格考試、通過本學程英語檢核標準、完成學位論文，並獲指導教授同意後，方得提出學位考試申請。

(二)申請學位考試前須提交英語能力達下述任一標準之證明：托福紙筆測驗(TOFEL ITP) 527分、托福網路測驗(TOFEL iBT) 71分、雅思國際英語測驗(IELTS) 5.5分、多益英語測驗(TOEIC) 700分、全民英語能力分級檢定測驗(GEPT)中高級初試通過，或培力英檢(BESTEP)聽讀說寫任2項能力達B2級；未能取得上述英語檢定達標證明者，得申請採認校內英檢通過證明，或修畢校內開設之英文科技論文寫作1門(修課成績須及格)。來自英語系國家或英語為國家官方語言之國際學生得申請英文免試，並由學程事務委員會審核決議。

(三)學位論文之完成須滿足至少有一篇論文為SCI期刊所接受，且為主要作者(第一作者或通訊作者)。

(四)產博生除須滿足前項論文條件外，尚須提出與產業關聯且具創新技術之研究成果，並提交下述任一文件：

1. 正式申請送件專利申請書一份
2. 正式申請送件產學合作計畫書一份
3. 正式申請送件科技專案研發計畫書一份
4. 與簽約產學合作單位共同擬定之專業報告二份

(五)學位考試申請，應於舉行口試之兩週前提出，並檢附下列文件：

1. 學位論文考試申請表
2. 學位論文考試委員名冊
3. 歷年成績單
4. 博士學位候選人資格考核及格證明

5. 論文相似度比對報告須低於 25% (得排除與自己已發表論文之相似度)

申請資料請先經指導教授、學程辦公室及相關單位主管簽章後，於申請期間內送教學組辦理。

(六) 學位考試成績以論文內容及口試成績綜合評定，七十分為及格，一百分為滿分，以出席委員評定分數之平均數決定之。但有三分之一(含)以上委員評定不及格者，以不及格論，評定以一次為限。

(七) 學位考試成績不及格，其修業年限尚未屆滿，得於次學期或次學年重考，重考以一次為限，重考成績仍不及格者，予以退學。

(八) 本學程博士學位考試委員會之組成，應有考試委員五至九人，其中校外委員至少一人，指導教授不得擔任召集人，指導教授以外之考試委員人數應達二分之一(含)以上。產博生之學位考試委員會，應有考試委員五至九人，並包含業師或產業界代表，其中校外委員(含業界代表)不得少於三分之一，產業界代表須符合教育部博士學位考試委員資格。

(九) 學位考試委員應具備下列資格之一：

1. 曾任教授或副教授者。
2. 獲有博士學位，在學術上著有成就者。
3. 屬於稀少性或特殊性學科，在學術或專業上著有成就者。

上述第 2 款及第 3 款之資格認定，須經本學程事務會議審查。

(十) 論文有抄襲或舞弊情事，經學位考試委員會審查確定者，以不及格論。

七、學位授予：本學程博士班研究生修業期滿，修畢應修之科目及學分數成績合格，且滿足本學程之修業規定，並通過本校學位授予辦法規定之各類考試(核)，方可由本校授予以理學博士學位，得加註專長，並發給學位證書。

八、已授予之學位，如發現論文、作品、成就證明、書面報告、技術報告或專業實務報告有造假、變造、抄襲、由他人代寫或其他舞弊情事，經本校組成之審查委員會審查屬實者，取消其畢業資格並追繳已頒給之學位證書；前述研究生經取消畢業資格並撤銷其學位證書，即使未屆滿修業年限，亦不得要求繼續修讀。

九、本規定如有未盡事宜，悉依教育部及本校相關規定辦理。本規定經本學程事務會議通過後實施，修訂時亦同。