

國立中央大學認知神經科學研究所
博士班研究生修業辦法
Institute of Cognitive Neuroscience of National Central University
Regulations of Course Requirements for the PhD Program

109.11.03 所務會議通過

Amended in the Institute Affairs Meeting on November 3rd, 2020

第一條 本辦法依本校「學則」、「博士班、碩士班研究生學位考試細則」、「學生逕讀博士學位辦法」及「學分抵免辦法」相關規定訂定之。

Article 1: These regulations were formulated in accordance with the National Central University's "Study Regulations", "Degree and Examination Regulations for Masters and PhD students", and "Course Credit Waiver Guidelines"

第二條 修業年限

- 一、修業年限以二至七年為限。
- 二、以在職生身份入學而未在修業年限內修滿應修課程或完成論文者，得延長修業年限一年。
- 三、逕修讀博士學位者，其修業年限自入博士班起算。

Article 2. The time limit for degree completion.

- 2.1. The time limit for degree completion is a minimum of two years and a maximum of seven years.
- 2.2. For advanced and training professionals who have been accepted as graduate students and completed the required course study but did not complete their thesis, the deadline may be extended for a maximum of ONE year.
- 2.3. The time limit will reset for students who receive direct admission from the MSc program to the PhD program at the time of upgrade.

第三條 修課規定

一、畢業學分

- (一) 學生自入學起至取得博士學位期間，必須修習 18 個學分以上之課程。
- (二) 逕修讀博士學位學生必須修習 34 學分以上之課程，其中至少 18 個學分為博士班開設之課程，且不包含碩士班專題討論課程之學分。
- (三) 學生於入學前曾修習本所博士班課程者，得於入學後第一學期或第二學期校曆規定時間內依本所「研究生學分抵免辦法」規定辦理。

二、必修科目：

- (一) 專題討論 I、II 及進階專題討論 I、II 各一學分，分別於四個學期修習。
- (二) 下列認知神經科學方法學系列至少兩系列，每一系列須修習二門課程。

系列 I: 經顱磁刺激(TMS)或經顱電刺激(tDCS, tACS, tRNS)

系列 II: 腦電波(EEG)或事件相關腦電位(ERPs)或腦磁波(MEG)

系列 III: 腦功能相關核磁共振造影或正子放射造影(MRI or PET of Brain Function)

系列 IV: 神經計算及生物資料分析(Neurocomputation & Biosignal analysis)

系列 V: 心理物理學(Psychophysics)

- 三、心理學實驗法及高等統計學兩門課程於入學時，由指導教授認定是否須修習之。
- 四、選修科目:凡非本所開設之課程，須經課程委員會之認可，方得列入畢業學分中。

Article 3. Courses

3.1. Course Credits

- 3.1.1. To fulfill the graduation requirement, the students have to earn a minimum of 18 course credits.
- 3.1.2. For students who receive direct admission from the MSc program to the PhD program, the students have to earn a minimum of 34 course credits, within which 18 credits have to be gained during the PhD program. This total excludes the credits for the seminar courses during the MSc program.
- 3.1.3. Students who have already taken courses offered by the PhD program before their enrollment can apply for exemption from these courses based on the ICN's course credit waiver guidelines.

3.2. Required Courses

- 3.2.1. Four semesters of seminar courses (Seminar I, Seminar II, Advanced Seminar I, and Advanced Seminar II, one credit for each).
- 3.2.2. Course must be selected from at least 2 categories of Cognitive Neuroscience Methodology courses from those listed in below, and at least two courses must be selected from each of the chosen categories.

Series I. Brain Stimulation (TMS, tDCS, tACS, tRNS)

Series II. Cognitive Electrophysiology (EEG, ERPs, MEG)

Series III. Functional Imaging (MRI or PET) of Brain.

Series IV. Neurocomputation & Biosignal Analysis

Series V. Psychophysics

- 3.3. The PhD students might be required to take the courses of Advanced Statistics for Psychology (3 credits) and Experimental Methods for Psychology (3 credits) at the request of his or her advisor.
- 3.4. Elective courses not offered by the Institute of Cognitive Neuroscience must be certified by the Course Committee to be accepted to provide credits towards the graduation requirements.

第四條 論文指導

- 一、學生必須於入學後第一學期結束前，選請本所專任(案)或合聘老師一人為論文指導教授。
- 二、學生於修業及論文進行期間不得任意變更論文指導教授，如因特殊因素確須更換者，須先知會原指導教授，並以書面向課程委員會申請，經委員會審查通過後方得變更。指導教授之變更僅限一次，並須於獲得博士學位候選人資格之前提出。
- 三、經指導教授同意，得選請所(校)外符合本校學位考試委員資格之教學研究人員一人擔任共同指導教授。
- 四、論文指導教授資格比照本校「博士班、碩士班研究生學位考試細則」之第四條。

Article 4. Thesis advisor

- 4.1. PhD students are required to choose a faculty member as their thesis advisor before the end of their first semester in the ICN.
- 4.2. PhD students may not arbitrarily change their thesis advisor during the course of study or in the process of writing the thesis. In exceptional case(s) in which a need is confirmed to change advisor, they must notify their original advisor and submit a petition to the Course Committee. The change will be made

official through committee evaluation and approval. The thesis advisor may only be changed ONCE and this request must be proposed prior to the completion of the qualification exam.

4.3. Upon approval from the thesis advisor, students may choose one other faculty member (including a collaborating or adjunct professor) to co-supervise.

4.4. The professor's qualifications as Thesis Advisor for graduate students are based on Article 4 in "National Central University's Degree and Examination Regulations for Bachelor and PhD students".

第五條 博士學位候選人資格考試規定

一、符合下列兩項之一的學生得申請參加資格考試

(一) 修畢至少兩系列「認知神經科學方法學系列」課程、「專題討論 I、II」、「進階專題討論 I、II」，且所有修習課程成績及格。

(二) 修畢至少一系列「認知神經科學方法學系列」及「專題討論 I、II」，且有一篇為第一作者或通訊作者，發表單位為本所的論文並為 SCIE(SCI)或 SSCI 登錄之期刊接受。

二、資格考試方式

(一) 以筆試進行:由包含指導教授在內，三至五位具助理教授或助研究員以上(含)資格之教學研究人員組成考試委員會，決定筆試內容所及之書單、考試時間及方式。

(二) 筆試於每學年學期間舉行，欲參加之學生須於該學期註冊前向本所申請。

(三) 筆試不及格者，可重考一次，但必須於第四學年結束前完成通過。筆試重考仍不及格者應予退學。

三、逕修讀博士學位研究生如未在限期內通過博士學位資格考者，經所務會議審查並報請校方核准後，得轉回原就讀之碩士班修讀。

四、資格考核之申請、撤銷、成績登錄，悉依本校有關規定辦理。

Article 5. PhD Qualification Examination

5.1. Students who fulfill one of the following two conditions are eligible to perform the qualification examination.

5.1.1. Completion of two categories of "Cognitive Neuroscience Methodology" courses, four semesters of seminar attendance, and other courses to attain 18 course credits.

5.1.2. Completion of at least one category of "Cognitive Neuroscience Methodology" courses, two semesters of seminar attendance, and have published (or in press) a first / corresponding author paper published in a SCIE(SCI)/SSCI listed journal. The papers must be submitted in the name of the Institute.

5.2. Format of test

5.2.1. Written Test: An Examination Committee (including the advising professor) comprised of 3 to 5 persons will provide the written test content, book list, examination format and time.

5.2.2. The examination should be scheduled during the semester. Students who are planning to take the examination should apply (through the Institute) prior to the semester registration period.

5.2.3. Students may retake the test ONCE to meet the passing grade. This must be completed prior to the end of the 4th year of study. Students who fail to pass the test after retake are subject to withdrawal from the university.

第六條 博士學位考試規定

一、符合下列三項規定之學生，得檢具歷年成績表、論文(初稿)、論文提要及指導教授推薦函各一份及學位考試申請表，於校曆規定時間內，經指導教授及所長同意，送請教務處核轉校長批准後，參加學位考試。

(一) 符合修課畢業學分之規定。

(二) 取得博士學位候選人資格至少一學期。

(三) 以第一作者或通訊作者的名義，於具同儕審查制度之期刊發表或被接受兩篇認知神經科學相關領域之論文，此論文之第一作者及通訊作者之所屬機構必須為本所，其中至少一篇須為 SCIE(SCI)或 SSCI 登錄之期刊，並由課程委員會審核此二篇論文內容合乎博士學位考試標準。

(四) 已於申請學位考試之當學期或前一學期，應於所上專題討論課程以論文題目進行公開演講。

二、依本校研究生學位考試細則規定，博士學位考試委員會由指導教授推薦五至九位校內外符合本校學位考試委員資格之教學研究人員，經所長同意後送請教務處核轉校長聘任組成，以口試方式進行論文考試。博士學位考試委員會應有三分之一以上成員為校外委員。

三、通過論文口試及完成論文審定之研究生，須繳交規定所需冊數之論文及完成論文摘要及全文電子檔上網建檔，並於校曆規定期間內辦妥離校手續後，發予學位證書。

四、畢業論文口試及其他有關畢業事項均依本校規定辦理。

Article 6. PhD Degree Examination

6.1. Students who fulfill the four conditions listed below must also prepare the following items to apply for the Degree Examination: course record, thesis first draft and abstract, and a recommendation letter from their advising professor. With consent from the advising professor and the Director of the Institute, they may submit the application to the Office of General Affairs and participate in the Degree Examination upon final approval from the President of the University.

6.1.1. Completion of the course requirements.

6.1.2. Complete of the Qualification Examination one semester prior to the oral examination.

6.1.3. Have two first/corresponding author papers published (or in press) in peer-reviewed journals. At least one of the two papers should be published (or in press) in SCIE(SCI)/SSCI listed journals. The papers must be submitted in the name of the Institute and must be in the field of Cognitive Neuroscience (or related area).

6.1.4. Deliver a public talk in the ICN seminar in the academic year prior to the oral examination.

6.2. The degree examination committee shall comprise 5 to 9 members recommended by the advisor and approved by the director of the ICN. The proportion of external members of the committee shall be at least one third. The degree examination shall be conducted orally.

6.3. The graduation certificate will be issued after the completion of the oral examination and submission of the thesis to the university within the deadline specified by the university.

6.4. The certificate will be issued after students pass their oral examination and complete the thesis verification. They must submit the required paper and electronic copies of the thesis and its abstract. Students are also required to complete other related graduation procedures before leaving the university.

第七條 學生之修業如有特殊狀況，得由指導教授敦請所長以及課程委員會召開個案討論會議討論。

Article 7. Should there be any issues related to the students, the advisor can ask for a Course Committee meeting.

第八條 本辦法如有未盡事宜，依教育部及本校有關規定辦理。

Article 8: If anything is not specified in these regulations, the students must comply with the relevant regulations of the Ministry of Education and those of the university.

第九條 本辦法經所務會議通過送院務會議審核後，報送教務會議核備後實施，修正時亦同。

Article 9: These regulations have been voted for and passed in the Institute Affairs Meeting and will be sent to the General Affairs Meeting of the College for further consideration and be executed accordingly. When the content of this regulation is to be edited or changed, the same procedure shall take place in an official manner.