

國立交通大學物理研究所與境外大學辦理碩博士雙聯學制修業規章  
National Chiao Tung University  
Institute of Physics  
Academic Regulations for the Joint Dual-Degree of Doctoral and Master Program with  
Overseas University

106年4月所務會議通訊審議修訂通過(106/4/7)  
105學年度第1次課程委員會修訂通過(106/3/21)  
104學年度第8次所務會議修訂通過(105/6/24)  
104學年度第1次課程委員會修訂通過(105/5/10)  
103學年度第2次課程委員會核備(104/3/12)  
102學年度第3次所務會議修訂通過(102/12/4)  
102年11月課程委員會通訊審議訂定(102/11/2)

Amended at the Communication of Committee of Institute Affairs in April 2017 (7 April 2017)

Amended at the 1st Committee of Institute Affairs in Academic Year 2017(21 March 2017)

Amended at the 8th Committee of Institute Affairs in Academic Year 2016(24 June 2016)

Amended at the 1st Communication of Curriculum Committee Organization in Academic Year 2016 (10 March 2016)

Approved at the 2ed Communication of Curriculum Committee Organization in Academic Year 2015 (12 March 2015)

Amended at the 3rd Committee of Institute Affairs in Academic Year 2013(4 December 2013)

Stipulated at the Communication of Curriculum Committee Organization in November 2013 (2 November 2013)

一、國立交通大學物理研究所（以下簡稱本所）為增進境外學術合作，加強本所與境外大學校院（以下簡稱境外大學）學生之境外交流學習，特訂定本規章。

Article 1. The Regulation is stipulated by Institute of Physics of National Chiao Tung University (referred to as IOP hereunder) for promoting the overseas academic cooperation and enhancing students' exchanges and learning of IOP and overseas universities, colleges, and institutions (referred to as overseas universities hereunder.)

二、本所辦理雙聯學制之境外大學，應符合下列規定：

1. 須當地國政府或教育主管機關立案或認可，且與國立交通大學（以下簡稱本校）或本所簽訂學術交流協議之境外大學。

2. 符合「大學辦理國外學歷採認辦法」或「大陸地區學歷採認辦法」規定之大學院校。

Article 2. The overseas universities which conduct the joint dual-degree with IOP should comply with the following regulations:

1. Overseas universities should be registered in or recognized by the local country or the competent authority of education, and they should contract the agreement of academic exchange with National Chiao Tung University (referred to as NCTU hereunder) or IOP.

2. All universities, colleges, and institutions should comply with "Regulations Regarding the Assessment and Recognition of Foreign Academic Credentials for Institutions of Higher Education" or "Regulations Regarding the Assessment and Recognition of Academic Credentials of the Mainland Area."

三、本規章所稱之辦理雙聯學制，係指本校或本所與境外大學依簽訂協議，協助所屬學生於原校修業至少滿二學期後，至對方學校進修學位，並於符合雙方畢業資格規定後，分別由兩校授予相同層級或不同層級之學位。

Article 3. The joint dual-degree of the Regulation is that NCTU or IOP contracts the agreement with overseas universities for assisting students to visit other universities for advanced studies after studying in the original university for at least two semesters. After the students meet the graduation requirement of both universities, the two universities will confer the degrees with the same or different level upon the students separately.

四、依本規章修讀學位學生，在二校修業時間得予併計，修業期間除依本校學則規定外，應符合下列規定：

1. 碩士班學生在本校碩士班修業時間至少二學期。

2. 博士班學生在本校博士班修業時間至少四學期。

Article 4. For students who are acquiring the degree according to the Regulation, the study periods in the two universities can be combined together. Besides the academic regulations of NCTU, the study period should comply with the following regulations:

1. The study period of master students in the master program of NCTU should be two semesters at least.
2. The study period of Ph.D. students in the doctoral program of NCTU should be four semesters at least.

## 五、修課與論文指導規定

Article 5. Course requirement and thesis instruction regulations

碩士生：

Master students:

1. 碩士班修業年限以一至四年為限，至少應修 24 學分。

必修課程：量子力學（一）（二）；書報討論 4 次。

必選課程：電動力學（一）及統計力學（一）中必選一科。

電動力學（一）（二）、古典力學、統計力學（一）、固態物理（一）（二）、高等固態物理（一）、量子場論（一）或原子分子物理（一）中必選兩科。

備註一：修習書報討論 4 次並及格。早於 4 學期畢業者不在此限，但其在學期間每學期必須依規定修習書報討論並及格。

備註二：除非本所當學年度之必修或必選課程未開，或經課程委員會同意，否則不得至外系所修課。

1. The minimum and maximum study periods for master programs must be one to four years, and the minimum graduation credits is 24.

Required courses: Quantum Mechanics (I)(II); Four Seminar.

Required elective courses:

Choose one from Electrodynamics (I) and Statistical Mechanics (I)

Choose two from Electrodynamics (I)(II), Classical Mechanics, Statistical Mechanics (I), Solid State Physics (I)(II), Advanced Solid State Physics (I), Quantum Field Theory (I), or Molecular Physics (I).

Remark 1: Take four seminars, with all grades higher than the passing grade. Students whose study period is shorter than four semesters do not need to follow this regulation, but they should complete and pass the seminar for each semester during the master's program.

Remark 2: Unless the required or required elective courses are not offered by Institute of Physics in the current academic year or under the approval of the Curriculum Committee, students should not select courses outside of Institute of Physics.

## 2. 畢業學分

- (2) 依本規章修讀學位學生，在二校當地修讀學分數，累計需各達畢業應修總學分數之三分之一以上。
- (3) 抵免學分依「學生抵免辦法」提出申請，繳交申請單、成績單及課程相關資料，經所課程委員會議通過，送教務處複核。
- (4) 學生於修業年限內未修滿畢業學分或未完成畢業論文口試將予以取銷學籍。

## 2. Minimum graduation credits

- (1) For students who are acquiring the degree according to the Regulation, the number of their credits in the two universities should be accumulated to more than a third of graduation credits of each university.
- (2) Students who want to transfer credits should follow "Regulations of Credit Transfer." They should submit the application form, transcript for all semesters, and related documents of courses. The applications will be passed by **Course Committee of Institute** and **submitted to the Office of Academic Affairs for examination.**
- (3) A student who fails to pass the oral defense or to complete all the required courses within study period is required to drop out of NCTU.

3. 碩士生必須選擇本所專任教師及境外學校教師各一人為共同指導教授。
3. A master student should invite one full-time teacher of IOP and one teacher of the overseas university to be co-advisors.
4. 研究生或指導教授任何一方，因故欲取消論文指導關係，兩方必須先溝通同意後，研究生得再另覓指導教授；若雙方無法達成共識，則由所務會議議決。
4. Whether it is the advisor or the student who asks to cancel the thesis instruction, both should first communicate with each other for agreement, and then the student can invite new advisor if they cannot reach any agreement, Committee of Institute Affairs should hold a meeting to make the final decision.

博士生：

Ph.D. students:

1. 博士班修業年限以二至七年為限，至少應修 18 學分。  
**必修課程**：量子力學（一）（二）；電動力學（一）（二）；統計力學（一）；書報討論 4 學期。  
**必選課程**：在以下四項類別中，擇不同類別裏的兩個科目修習：
  - (i) 固態物理（一）（二）或高等固態物理（一）
  - (ii) 量子場論（一）或粒子物理（一）
  - (iii) 原子分子物理（一）
  - (iv) 本所同意之物理子領域課程
 備註：除非本所當學年度之必修或必選課程未開，或經課程委員會同意，否則不得至外系所修課。

1. The minimum and maximum study periods for doctoral programs must be two to seven years, and the minimum graduation credits is 18.  
 Required courses: Quantum Mechanics (I)(II); Electrodynamics (I)(II); Statistical Mechanics (I); Seminar (four semesters)  
 Required elective courses: Choose two subjects from four different categories as follows:
  - (i) Solid State Physics (I) (II) or Advanced Solid State Physics (I)
  - (ii) Quantum Field Theory (I) or Particle Physics (I)
  - (iii) Atomic and Molecular Physics (I)
  - (iv) Institute courses in a subfield of Physics that are approved by the Institute of Physics.

Remark: Unless the required or required elective courses are not offered by Institute of Physics in the current academic year or under the approval of the Curriculum Committee, students should not select courses outside of Institute of Physics.

2. 畢業學分
  - (1) 依本規章修讀學位學生，在二校當地修讀學分數，累計需各達畢業應修總學分數之三分之一以上。
  - (2) 抵免學分依「學生抵免辦法」提出申請，繳交申請單、成績單及課程相關資料，經所課程委員會議通過，送教務處複核。
  - (3) 學生於修業年限內未修滿畢業學分或未完成畢業論文口試將予以取銷學籍。
  - (4) 博士生需先通過資格考試方能申請雙聯學位。本所認可境外學校所屬博士生於原校所通過之資格考試資格。
2. Minimum graduation credits
  - (1) For students who are acquiring the degree according to the Regulation, the number of their credits in the two universities should be accumulated to more than a third of graduation credits of each university.
  - (2) Students who want to transfer credits should follow "Regulations of Credit Transfer." They

should submit the application form, transcript for all semesters, and related documents of courses. The applications will be passed by **Course Committee of Institute** and **submitted to the Office of Academic Affairs for examination.**

- (3) A student who fails to pass the oral defense or to complete all the required courses within study period is required to drop out of NCTU.
  - (4) Ph.D. student can apply for joint dual-degree only after passing Ph.D. qualification examination. IOP recognizes overseas Ph.D. students' qualification acquired by passing the Ph.D. qualification examination in their original universities.
3. 博士生必須選擇本所專任教師及境外學校教師各一人為共同指導教授。
  3. A Ph.D. student should invite one full-time teacher of IOP and one teacher of the overseas university to be co-advisors.
  4. 研究生或指導教授任何一方，因故欲取消論文指導關係，兩方必須先溝通同意後，研究生得再另覓指導教授；若雙方無法達成共識，則由所務會議議決。
  4. Whether it is the advisor or the student who asks to cancel the thesis instruction, both should first communicate with each other for agreement, and then the student can invite new advisor If they cannot reach any agreement, Committee of Institute Affairs should hold a meeting to make the final decision.

#### 六、畢業口試：

##### Article 6. Oral defense for graduation:

碩士生：

Master students:

1. 本所碩士班學生之碩士學位考試，以口試行之。學位考試依下列規定辦理：
1. The defense for each master students are conducted orally, and it should be conducted according to the following regulations:
  - (1) 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。
  - (1) All oral defenses must be conducted openly. The time and place of the oral defense and the title of thesis/dissertation must be announced in advance.
  - (2) 學位考試委員應親自出席委員會，不得委託他人代表。至少應有委員三人出席，使得舉行。
  - (2) All members of an oral defense committee must attend the oral defense in person. Stand-ins are not permitted. An oral defense for master degree should be attended by at least three committee members.
  - (3) 學位考試委員會由指導教授與口試委員組成，其中本所所內教師至少須 2 人，並指定 1 人為召集人，指導教授不得為召集人。
  - (3) The committee of oral defense consists of the advisor and other members, among whom at least two members should be the teachers of IOP. One member should be designated to be the chairperson, and the advisor should not be the chairperson.
  - (4) 碩士論文考試成績以七十分及格，出席委員如有逾二分之一以上委員評定不及格者即以不及格論；論文考試成績以出席口試委員記名評定分數平均決定之。不及格而其延長修業年限尚未屆滿者，得於次學期或修業年限內申請重考，重考以一次為限，重考不及格者，即令退學。
  - (4) The passing grade of the oral defense is 70. The oral defense is deemed "failed" when the scores given by more than a half of the present members are below the passing grade. The results should be determined by the average signed scores given by the present members. Students who fail to pass the oral defense may apply for the retrial in next semester or

within their extended study period. Retrial will be limited to be once. Students who fail to pass the retrial of degree defense should be required to drop out of NCTU.

- (5) 論文有抄襲或舞弊情事，經學位考試委員會確定者，以不及格論。  
(5) A student definitely fails when plagiarism or cheating is discovered in the thesis and confirmed by the oral defense committee.

2. 碩士學位考試委員會置委員三至五人，由系(所)就校內外學者專家中對研究生所提論文有專門研究，並具備下列資格之一者，向校長推薦，由校長遴聘組成之。

- (1) 曾任教授或副教授者。  
(2) 擔任中央研究院院士或曾任中央研究院研究員、副研究員者。  
(3) 獲有博士學位，在學術上著有成就者。  
(4) 屬於稀少性或特殊性學科，在學術上或專業上著有成就者。  
前項第三款、第四款之提聘資格由所教評會審核之。

2. The Principal of NCTU will select three to five members to form a committee for the master degree oral defense from the scholars and experts recommended by IOP. The scholars and experts, whether from NCTU or an external organization, must specialize in the area of research or study of the applicant and fulfill at least one of the following requirements:

- (1) has held the position of professor or associate professor at one time.  
(2) is a research fellow or has been a researcher or associate researcher at Academia Sinica.  
(3) holds a doctoral degree and has outstanding academic achievements or holds the position of assistant professor.  
(4) has outstanding academic or professional achievements in certain rare or specific fields.  
The criteria of qualification determinations for items (3) and (4) should be drawn up at the Teacher Evaluation Committee.

博士生：

Ph.D. students:

1. 博士學位候選人之學位考試，以口試行之，學位考試依下列規定辦理：

1. The defense for each Ph.D. students are conducted orally, and it should be conducted according to the following regulations:

- (1) 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。  
(1) All oral defenses must be conducted openly. The time and place of the oral defense and the title of thesis/dissertation must be announced in advance.  
(2) 學位考試委員會應親自出席委員會，不得委託他人代表，博士學位考試委員會至少應有委員五人出席，始得舉行。  
(2) All members of an oral defense committee must attend the oral defense in person. Stand-ins are not permitted. An oral defense for doctoral degree should be attended by at least five committee members.  
(3) 學位考試委員會由指導教授與口試委員組成，其中校外及校內委員人數各須三分之一以上，並指定 1 人為召集人，指導教授不得為召集人。  
(3) The committee of oral defense consists of the advisor and other members, among whom both the members inside and outside NCTU should account for more than one-third of the committee. One member should be designated to be the chairperson, and the advisor should not be the chairperson.  
(4) 博士論文考試成績以七十分及格，滿分為一百分。出席委員如有逾三分之一以上委員評定不及格者即以不及格論；論文考試成績以出席口試委員記名評定分數平均決定之。不及格而其延長修業年限尚未屆滿者，得於次學期或修業年限內申請重考，重考以一次為限，重考不及格者，即令退學。

(4) The passing grade and full marks of the oral defense are 70 and 100. The oral defense is deemed "failed" when the scores given by more than a third of the present members are below the passing grade. The result is determined by the average signed scores given by the present members. Students who fail to pass the oral defense may apply for the retrial in next semester or within their extended study period. Retrial will be limited to be once. Students who fail to pass the retrial of degree defense should be required to drop out of NCTU.

(5) 論文有抄襲或舞弊情事，經學位考試委員會確定者，以不及格論。

(5) A student definitely fails when plagiarism or cheating is discovered in the dissertation and confirmed by the oral defense committee.

2. 博士學位考試委員會置委員五至九人，由系(所)就校內外學者專家中對研究生所提論文有專門研究，並具備下列資格之一者，向校長推薦，由校長遴聘組成之。

(1) 曾任教授者。

(2) 擔任中央研究院院士或曾任中央研究院研究員者。

(3) 曾任副教授或擔任中央研究院副研究員，在學術上著有成就者。

(4) 獲有博士學位，在學術上著有成就者。

(5) 屬於稀少性或特殊性學科，在學術或專業上著有成就者。

前項第三款至第五款之提聘資格由所教評會審核之。

2. The Principal of NCTU will select five to nine members to form a committee for the doctoral degree oral defense from the scholars and experts recommended by IOP. The scholars and experts, whether from NCTU or an external organization, must specialize in the area of research or study of the applicant and fulfill at least one of the following requirements:

(1) has held the position of professor at one time.

(2) is a research fellow or has been a researcher at Academia Sinica.

(3) has been an associate professor or an associate researcher at Academia Sinica and has outstanding academic achievements.

(4) holds a doctoral degree and has outstanding academic achievements or holds the position of assistant professor.

(5) has outstanding academic or professional achievements in certain rare or specific fields.

The criteria of qualification determination for items (3) to (5) should be drawn up at the Teacher Evaluation Committee.

七、學位考試通過後一個月內應將論文摘要及全文電子檔上網建檔（依照「國立交通大學圖書館學位論文摘要及全文檔建檔規範」辦理），並繳交論文四冊(二冊本所收藏，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)。

Article 7. A student is required to post an electronic version of the abstract and thesis/dissertation on the university website within one month of passing the oral defense. (See NCTU Library Abstract, Thesis and Dissertation Electronization Specification for details.) A student must also submit four copies of the thesis/dissertation (two submitted to IOP, one displayed in the library, and one submitted to the Office of Academic Affairs for transmission to appropriate archival units as specified by the MOE).

八、本規章依實際需要，與辦理雙聯學制之境外大學，另訂雙聯學制之應修科目及學分，經所課程委員會、所務會議、院課程委員會、校課程委員會通過，送教務會議核備後實施。

Article 8. The Regulation takes actual need into consideration, cooperating with the overseas universities in charge of joint dual-degree to set up required courses and credits of joint dual-degree. Regulations will be implemented after being passed at the Course Committee of Institute, Committee of Institute Affairs, Course Committee of College, Course Committee of University, and submitted to Office of Education Affairs for future reference.

九、本辦法未盡事宜，悉依本校學則及相關規定辦理。

Article 9. Anything not considered in the Regulation should be governed by the academic regulations of

NCTU and related regulations.