

國立中央大學應用材料科學國際研究生碩士學位學程修業辦法
Course Requirements for International Master Degree Program in Applied
Materials Science (IAMS) at National Central University

102.01.10應用材料科學國際研究生碩士學位學程課程委員會通過
Passed in Curricula Committee of IAMS on Jan 10, 2013

102.03.05院課程委員會通過
Passed in Curricula Committee of College of Engineering on Mar.05, 2013

102.06.19教務會議核備
Reported to the Academic Affairs Meeting on June 19, 2013

103.5.1應用材料科學國際研究生碩士學位學程委員會修訂通過
Revised & Passed in Committee of IAMS on May 1, 2014

103.06.11教務會議核備
Reported to the Academic Affairs Meeting on June 11, 2014

第一條 本辦法依本校「博士班、碩士班研究生學位考試細則」規定訂定之。

Article 1: This regulation is made according to “Rules Governing the Master’s and Doctoral Degree Qualifying Exam of National Central University”

第二條 修業年限:碩士班修業年限以一至四年為限。

Article 2: Duration of Study : Students must complete their program of study within 1~4 years

第三條 修課規定及學分抵免：

Article 3: Courses Regulation & Credit Transfer

一、修課規定

1. Courses Regulation

(一) 須修滿 24 學分，其中含專題討論及碩士論文，至少修習 3 門必修課程。

(1) 24 academic credits, which include “Seminar” & “Thesis” are required for graduation. Students have to take least 3 required courses.

(二) 在學期間每學期必修碩士論文及專題討論，總共至少必修各 4 學期。

(2) During academic period in every semester, students have to take the courses of “Master Thesis” and “Seminar”; and they also have to take these 2 courses at least 4 semesters.

(三) 修習課程請見附表。

(3) Course list is as attached.

(四) 欲修讀非屬附表所列之課程，需經指導教授及學程主任同意後始得修習，未經同意所修習課程之學分將不得列計畢業學分。

(4) Students who would like to take courses which are not listed in the attached course list have to seek for agreement from the thesis adviser and program director advance. Without agreement, the credits will not be counted as graduation credits.

二、學分抵免

2. Credit Transfer

(一) 入學前曾修習本學程所開授研究所課程且成績達 70 分，未計入前一學位最低畢業學分數者，得申請抵免。抵免總學分數以 12 學分為上限，所抵免課程成績不列入平均分數。

- (1) Students who have taken the course in our program with a grade equal to or higher than 70 can apply for credit transfer of the course if the course credits have not been counted in undergraduate degree. The maximum credits students can apply for are 12 and the grades of the courses that you apply won't be listed as students' average grades in the final transcript.
- (二) 入學前曾修習外校或本校其他系所研究所課程，需經過本學程該門課程專任教師審查後，始可抵免。
- (2) Students who have studied other related courses in NCU or other schools before enrollment can apply for credit transfer after approval from the courses lecturers of this program.
- (三) 學分抵免應於入學第一學期或第二學期校曆規定之時間內辦理，由本學程該學年相關課程授課教師審查決定。
- (3) Students should complete the application of credit transfer during the course selection period in the 1st or the 2nd semester after approval from the courses lecturers of this program.

第四條 指導教授：

Article 4: Thesis Advisor

- 一、 新生應在入學第一學期結束前選定本學程認可之專任教師一至二人為論文指導教授，並請提報本學程辦公室。
 1. Students must choose 1-2 professors of this program as your thesis advisor by the end of the 1st semester and report to the program office.
- 二、 論文指導教授既經選定後，非特殊情況不得更換。更換指導教授須經原指導教授同意後為之，並以申請一次為限。
 2. After choosing your thesis advisor, you may not change except for special case. Students have to get approval from your original thesis advisor before changing to another one and we only accept this change for one time.
- 三、 碩士生選課、離校，均須經指導教授簽准同意。若尚未選指導教授，則由學程主任簽准。
 3. Students have to seek for permission from your thesis advisor for course selection and graduation. If students haven't decided the thesis advisor yet, you can seek for permission from the program director.

第五條 學位考試之條件與程序

Article 5: Examination & Procedure

碩士生在規定年限內滿足課程與學分規定後，得依本校「博士班、碩士班研究生學位考試細則」有關規定申請學位論文考試。通過學位論文考試、完成論文審定及離校手續後授予碩士學位。

After students finish the courses & satisfy the required credits during the duration of study, they may apply for thesis defense according to “*National Central University Rules Governing the Master's and Doctoral Degree Qualifying Exam and Thesis Defense*”. Students will receive the “Master of Science” degree after passing the thesis defense, finishing thesis examination and complete the graduation process.

第六條 離校手續

Article 6: Graduation process

通過學位論文口試且符合畢業資格者，須經指導教授簽核並依本校規定程序辦理畢業離校手續。

Students who have passed the thesis defense and finished thesis examination can apply for graduation process after obtaining the approval from thesis advisor.

第七條 本學程學位授予名稱依指導教授所屬學院分為工學碩士或理學碩士，學位英文名 Master of Science。

Article 7: Students can choose your thesis advisor from College of Science or College of Engineering, and will receive a “Master of Science” degree.

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 this regulation is incomplete, please consult with the related regulations set by Ministry of Education and National Central University.

第九條 本辦法經本學程委員會通過，並報教務會議核備後實施，修正時亦同。

Article 9: This regulation will take effect after approval by the Program Committee of IAMS and reports to the Academic Affairs Meeting. The same applies to further modifications in the future.

附表： Attachment	102.01.10應用材料科學國際研究生碩士學位學程課程委員會通過 Passed in Curricula Committee of IAMS on Jan 10, 2013 102.03.05院課程委員會通過 Passed in Curricula Committee of College of Engineering on Mar.05, 2013
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必(選)修 Required / elective	授課年級 Course Grade	課程名稱 Chinese Course Name	英文課程名稱 English Course Name	授課學期 Lecture semester	學分 Credit
必 Required	1~2	專題討論	Seminar		4
必 Required	1~2	碩士論文	Master Thesis		0
必 Required	1	固態物理 I	Solid State Physics I	上 fall	3
必 Required	1	固態物理 II	Solid State Physics II	下 spring	3
必 Required	1	固態化學	Solid State Chemistry	下 spring	3
必 Required	1	高分子材料化學	Chemistry of Polymeric Materials	上 fall	3
必 Required	1	生物高分子	Biomacromolecules	上 fall	3
必 Required	1	高等材料物理學	Materials Physics	上 fall	3
必 Required	1	材料電化學	Electrochemistry of Materials	上 fall	3
必 Required	1	奈米材料製程 與檢測技術	Processing and Characterization of Nanomaterials	上 fall	3
選 elective	1~2	表面反應	Surface Reactions	下 spring	3
選 elective	1~2	量子力學 I	Quantum Mechanics I	上 fall	3
選 elective	1~2	量子力學 II	Quantum Mechanics II	下 spring	3
選 elective	1~2	材料機械性質	Mechanical Behavior of Materials	上 fall	3
選 elective	1~2	振動學	Vibration Analysis	上 fall	3
選 elective	1~2	永續能源與環境	Sustainable Energy and the Environment	上 fall	3
選 elective	1~2	永續能源	Sustainable Energy	上 fall	3
選 elective	1~2	物理生物化學	Physical Biochemistry	下 spring	3
選 elective	1~2	材料應力分析	Characterization of Materials Residual Stress	上 fall	3
選 elective	1~2	生物啟發材料	Bio-inspired Materials	上 fall	3
選 elective	1~2	粉末技術工程	Powder Technology and Engineering	下 spring	3
選 elective	1~2	固態擴散	Diffusion in Solid Materials	下 spring	3
選 elective	1~2	軟質材料	Soft Materials	下 spring	3
選 elective	1~2	材料分析與鑑定	Materials Characterization	下 spring	3
選 elective	1~2	相變化	Phase Transformation	下 spring	3
選 elective	1~2	X 光繞射結晶學	X-ray Diffraction and Crystal Structure	下 spring	3

選 elective	1~2	固態材料物理	Materials Physics of Solid	上 fall	3
選 elective	1~2	非晶質合金	Amorphous Metallic Alloys	下 spring	3