

National Chung Hsing University
The Department of Materials Science and Engineering
Implementation Guidelines and Notices for Doctoral Candidate
Qualifying Examination

Established on Oct. 02, 1996

Amended in the Department Faculty Meetings on Aug. 06, 1998, Jul. 10, 2001, Apr. 21, 2004, Jun. 03, 2004

Amended in the Department Faculty Meetings on Apr. 12, 2006, Jun. 13, 2007, Jul. 22, 2008, Feb. 18, 2009

Amended and approved in the Department Faculty Meetings on June 30, 2010, Dec. 12, 2012, Mar. 13, 2013

Amended and approved in the Joint Meeting of Academic and Course Councils on Nov. 09, 2016 (applicable to students admitted in and after 2017)

Amended and approved in the Departmental Faculty Meeting on Dec. 28, 2016

I. Regulations for doctoral candidate qualifying examination:

1. Student has to pass the qualifying examination within 3 years after the admission (not including the period of suspension, student shall not take the qualifying examination during the period of suspension), or will be expelled.
2. Subjects of qualifying examination:
 - ◎Fundamental of Diffraction ◎Electrode Kinetics ◎Thermodynamics of Solids
 - ◎Principles of Electron Microscopy ◎Interfaces in Materials
 - ◎Advanced Diffusion in Solids ◎Defects in Materials ◎Introduction to Solid State Physics
3. Student has to pass 3 of the above subjects.
4. The final exam of each subject is served as qualifying exam. Student shall apply to the Department Office 3 weeks before the final exam of each subject.
5. If there is no final exam held in the subject, students may ask the former teacher of the subject to hold a qualifying exam.
6. Students ranked in the top 75% of all students in the class shall pass the qualifying exam. For exceptions, teacher of the subject shall submit a report to the academic council of the Department for review. When there are less than 3 students taking the exam, a teacher appointed by the Chair of the Department shall set the qualifying exam. The Department Faculty Meeting will decide the score of passing level.
7. Ph.D. student of the Department (including master graduates and applicants of direct admission to doctoral program) who has taken the above subjects and fulfilled the Regulation 6 may apply for exemption during the application period of qualifying exam in the first semester after the admission.
8. Student who had passed any subject of the qualifying examination can apply for subject exemption during the application period in the first semester of the admission.

II. Notices:

1. Ph.D. student shall complete his dissertation and gain at least 18 credits. However,
 - (1) Among the 18 credits, at least 12 of them shall be credits from courses of the Department.
 - (2) Student shall not receive more than 6 credits from selective courses of undergraduate programs.
 - (3) Colloquium is a compulsory course.
2. Before the oral examination, Ph.D. student shall publish paper(s) on journals listed in SCI (See **【Note 1】**). Students shall acquire 4 or more points and be the first author of at least 1 paper. Points are calculated as follows:
 - (1) Student has 3 options and shall fill out and submit the “Publication Point

Calculation Report of Application for Doctoral Degree Examination” of the Department (The report is in the attachment).

- A. Points calculated according to the ranking of the journal:
 - (I) Journals ranked in the top 25% in the field students choose: 3 points.
 - (II) Journals ranked in the top 50% in the field students choose: 2 points.
 - (III) Journals ranked in the last 50% in the field students choose: 1 point.
- B. Accumulated points of Impact Factor. (Students shall submit the latest information of the year of his application)
- C. 1 paper that acquires 4.0 IF and is published in journal ranked in the top 10% of the field.

Note: ① Only half of the points of the communication, letter or short note published in the same journal will be calculated.

② Points will be calculated according to the ranking of the publisher when the sub journal does not have a ranking or IF.

- (2) Invention patent: 2 points. Utility model patent: 0.5 points.
- (3) International proceeding paper: 0.5 points with a maximum of 1 point.
- (4) Domestic journal paper: 1 point with a maximum of 2 points.
- (5) Points will only be calculated once from either a paper or a patent when their contents are repeated.
- (6) Except for the advisor, the first author of paper and patent receives the full points; the second author receives 1/2 of the points; the third author 1/4 of the points and so forth.

【Note 1】 :

- A. Article(s) counted in the “Publication Point Calculation Report” shall be highly correlated to his dissertation.
- B. Advisor(s) shall be one of the co-author.
- C. Students shall be affiliated with the “*Department of Materials Science and Engineering, National Chung Hsing University*” in the article(s) they published.