## National Chiao-Tung University Graduate Institute of Management of Technology

## Policies and Procedures of Ph.D. Programs

Approved October 21, 1998, by the Institute Affairs Meeting Revised June 21, 2001, by the Institute Affairs Meeting Revised May 28, 2003, by the Institute Affairs Meeting Revised March 2, 2004, by the Institute Affairs Meeting Revised April 28, 2004, by the Institute Affairs Meeting Revised March 22, 2005, by the Institute Affairs Meeting Revised March 22, 2006, by the Institute Affairs Meeting Revised May 26, 2006, by the Institute Affairs Meeting Revised October 26, 2006, by the Institute Affairs Meeting Revised November 29, 2006, by the Institute Affairs Meeting Revised January 12, 2007, by the Institute Affairs Meeting Revised March 19, 2009, by the Institute Affairs Meeting Revised March 29, 2010, by the Institute Affairs Meeting Revised April 30, 2014, by the Institute Affairs Meeting Revised March 25, 2015, by the Institute Affairs Meeting Revised October 17, 2016, by the Institute Affairs Meeting Revised September 13, 2017, by the Institute Affairs Meeting Revised March 21, 2018, by the Institute Affairs Meeting

I. Policies and procedures stated herein are proposed in accordance with the "Master's and Ph.D. Degree Awarding Regulations" of National Chiao Tung University (NCTU) to provide a general instruction and maintain the academic standards of the doctoral students of the Graduate Institute of Management of Technology (IMOT, hereafter the Institute) at NCTU. Doctoral students who study at the Technology Management Program should follow the guidelines under the title; who are at the Technology Law Program should abide by its related requirements as stated.

# 《Ph.D. Program of Technology Management》

## [Admission]

- II. 1. Applicants who have a master's degree or its equivalent from a public or private university, an individual college, or an accredited foreign institution recognized by the Ministry of Education (MOE) and also passed the Ph.D. entrance exam are qualified to enter the Institute as doctoral students.
  - 2. Master's students who have studied in the Institute or other NCTU departments/ institutes for more than one year, presented outstanding research potential, and academically ranked at the top half of the class every semester or achieved other excellence (such as academic paper publications) are eligible to apply for the Ph.D. program of the Institute.
  - 3. Students who meet the requirements of the "MOE Regulations Regarding International Students Undertaking Studies in Taiwan" and "Admission Policy for Foreign Students to Study Degree Programs or Credit Programs at NCTU" are eligible to apply for the Ph.D. program of the Institute if the applicants' GMAT score above 550 and also TOEFL score above 237 for people from non-English speaking countries.

4. Newly graduated undergraduate students of NCTU or NCTU students who have studied in the master's program for at least one year may apply for the Direct-Ph.D. program of the Institute in line with the "Regulations of the Study on Direct-Ph.D. Program at NCTU." The faculty of the Institute shall assess applicants' qualifications in accordance with the "Policies of the Study on Direct-PhD Track" of the Institute and present the screening to the Institute Affairs Meeting and then NCTU authority for approval.

## [Leave of absence]

- III. 1. Students may apply for leave of absence one term at a time and up to two accumulated academic years. For students who are critically ill or are in need for recovery may petition for an extension with approval from administrative affairs meeting.
  - 2. Students responding to the call of conscription service in the duration of Leave of absence must petition to extend the leave with the presentation of the photocopy of the conscription order until discharged from service. Students can apply for reinstatement of study after discharge from conscription with proper order of discharge. The period of conscription is not counted as a part of the period for study.
  - 3. Students may apply for leave of absence due to pregnancy, delivery of an infant or taking nursery care of a child under the age of 3 with proper proving documents. The period of maternity and paternity leave is not counted as a part of the period of leave of absence.
  - 4. Students who have completed credits of coursework may apply for leave of absence before the end of semester. Otherwise, application must be completed before the date of examinations set according to the school calendar.

# [ Academic Requirements ]

IV. Full-time doctoral students are required to complete the degree in two to seven years while part-time students can complete with one additional year, i.e. in two to eight years. Students who wish to graduate before completing three years of study should get approval from the Institute Affairs Meeting and the Office of Academic Affairs of NCTU. To be eligible for graduation, doctoral students must complete at least 27 credits of coursework (applicable to doctoral students who are still enrolled in the Institute), including at least 6 courses (18 credits) from the Institute, at most 3 courses (9 credits) from other departments/institutes, Ph.D. Dissertation (3 credits). Students are required to take at least 9 credits of advanced courses at Ph.D. level, including those completed in other departments/institutes. All required or pre-requisite courses for master's students are pre-requisite courses for doctoral students. To waive the pre-requisite courses, students should fill and submit the form of Application for Waiving Ph.D. Pre-requisite Courses (Form D01) to the Institute and get the approval from the course lecturer. If the lecturer is an adjunct professor, the decision should be made by full-time faculty members of the Institute in the related fields. The review and approval/disapproval of all the applications for waiving required courses should be in the Institute Affairs Meeting. No more than 9 credits from other departments/institutes or Universities can be waived. Students who study for Ph.D. degree without a master's diploma should complete at least 54 credits (including courses taken in the master's degree program) to be eligible for graduation. The course registration of doctoral students shall be approved by their dissertation advisors.

- V. Ph.D. Qualifying Examinations: the specialty area and the general management tests
  - 1. The qualifying examination on specialty area tested by the dissertation advisor of the student.
  - 2. The qualifying examination on the general management includes two options
    - (1). Taking the subject tests:

Subjects includes: marketing management, financial strategic management, innovation and entrepreneurship, strategic management, and industry analysis. Each subject will be graded as "pass" or "fail." Students will succeed the exam by passing three of more subject tests.

(2). Publishing academic paper(s) instead of taking the subject test(s):

Doctoral students can apply to waive the subject tests with published or accepted paper(s). The paper(s) must be published with the name of the Institute and the student the sole author except faculty member(s). The paper(s) used for this purpose will not be counted towards graduation. The criteria to waive the subject test(s) with each paper are as below:

Ranking of the Journal	Subject(s) to be waived with each paper
Top Journals of the College of Management (UTD, 24 leading business journals)	three subjects
SCI or SSCI journals	two subjects
EI or TSSCI journals	one subject

- 3. Students who fail any of the subjects or are unable to fulfill the requirements of the qualifying examination within the first three years of study shall be dismissed by NCTU.
- 4. Students who have completed all credits of coursework and passed the qualifying examinations and **800 point TOEIC test certificate in English** will then officially advance to candidacy.
- VI. Qualifying examinations are held once a semester in mid-October for fall semester and mid-March for spring semester. Students should apply to take the exams by submitting the "Application Form for the Qualifying Examinations" (Form D02) two months prior to the exams (August 1 and January 1, respectively) with the approval of their dissertation advisors. The reference books for each subject will be posted within three weeks after the application deadlines. All exams are close book tests and the exact exam dates shall be announced each semester by the Institute.
- VII. Doctoral students are required to stay at school at least four days a week during their first two years of study though students who need to do research in other organizations may reduce the time staying on campus upon approval by their dissertation advisors.

[Application for a Dissertation Advisor]

- VIII. 1. Doctoral students are required to submit their choices of dissertation advisors within one year by filling "The Application Form of Advisor Assignment" (Form C01) before handing it in to the Institute. Delayed students will be informed by the Institute. In cases of difficulty, students can apply for appointment of advisor by the Institute affairs meeting. Students are not allowed to take a leave of absence before application of advisor completed.
  - 2. Advisors may only be full-time faculty members. Students are allowed to have a full-time faculty member from other department/institute or school to co-advise his/her research upon approval by advisor of the Institute. If for some reason an advisor cannot continue mentoring students, the advisory relationship may be suspended by the Institute affairs meeting. If students have not yet graduated by the time of retirement of their advisor, retired faculty members may continue to mentor students until graduation.
  - 3. Doctoral students should choose a full-time faculty member as advisor who will not mandatorily retire within 1 year.
  - 4. Each faculty member can advise up to a total of 5 students in 5 years (including student(s) on leave of absence). Faculty member who received the Flexible Salary Research Subsidy in the past 3 years can advice up to 7 students.
  - 5. If a student seek to change advisor for some reason, he / she should submit the application form to the Institute, and will be effective after notifying the original advisor, without the agreement of the original advisor.

The application should indicate the reasons for changing advisor, as well as the original and new research directions. The student must agree to not utilize published or unpublished research paper, content, ideas, original technical method of the original advisor as part of his/her doctoral dissertation. Or the research's original ideas and concepts obtained under the original advisor, the research results must be approved by the original advisor and can be used as a doctoral dissertation.

6.If the advisor wishes to terminate the guiding relationship, student shall submit application to the Institute and the results of the review shall be notified to graduate students by the Institute.

After terminating the guiding relationship, Institute will assist the graduate student in finding another advisor.

# The Article VIII section 5 and 6 applicable to doctoral students who are still enrolled in the Institute

IX. After passing the Ph.D. qualifying exam, a student's dissertation advisor should recommend at least five NCTU faculty (with assistant professorship or above) to be appointed by the Institute to form a Dissertation Advising and Reviewing Committee (hereafter the Dissertation Committee). The student's advisor will be regarded as an essential member of the committee. The Dissertation Committee will be responsible for advising on the student's research proposal, research topics/directions, change of an advisor, progress of the research, and the oral defense of the dissertation.

X. PhD candidates are not expected to change their advisors while doing the dissertation research. If it is a must to change an advisor, the candidate must get permission from the original advisor and submit the "Application Form for Changing the Advisor" (Form C08) to the Institute. With the approval of the Institute, the student then can have a new advisor and must be re-evaluated by the new Dissertation Committee to regain candidacy.

#### [Dissertation]

- XI. In line with NCTU "Master's and Doctoral Degree Awarding Regulations," the Ph.D. Degree Examination Committee is composed of five to nine members, who are experts on the candidate's research areas and may or may not be NCTU faculty. Either NCTU or non-NCTU committees should count at least one third of all committee members respectively while there must be at least three IMOT faculty members in the committee. All committee members should also meet one of the following criteria:
  - 1. Being a Professor now or before
  - 2. An Academician or being a Researcher of Academia Sinica now or before.
  - 3. Being an Associate Professor or an Associate Researcher of Academia Sinica now or before, with excellent academic performance
  - 4. A Ph.D. with significant academic achievements or an Assistant Professor
  - 5. An expert on a rare or specialized field, with excellent academic or professional achievements

The qualification of Items *c* to *e* listed above will be determined by the Institute Affairs Meeting.

## [The Oral Examination for a Dissertation Proposal]

XII. The Procedures and Requirements of the Oral Examination for a Dissertation Proposal:

- 1. The candidate must get an average score of 70 or above to pass the oral defense of a dissertation proposal. The convener of the examination committee should collect all the scores (Form C03) graded by the committee members and fill the average score into the Form C09. If the candidate has performed research different from the previously approved proposal and been agreed by his/her advisor, s/he must submit "The Application Form for Changing Dissertation Title and Committee" (Form C10) and re-take the oral defense for the new proposal. Students who fail twice the defense of the proposal or fail to pass it within four years will be dismissed from NCTU.
- 2. Students who are going to take the oral defense for a dissertation proposal should provide the following:
- (1). copies of the PowerPoint file of the presentation
- (2). one copy of the dissertation proposal to each committee member
- (3). the proposal with the first three chapters of the dissertation included

XIII. Students can apply for a dissertation oral examination with approval from their advisor after a dissertation proposal has been accepted.

#### [The Oral Defense of a Dissertation]

- XIV. A Ph.D. candidate can apply to take the Ph.D. degree examination if s/he meets the minimum study-period requirement, completes all the coursework required by the Institute, and has published two dissertation-related papers which should include at least one paper in the SSCI or SCI journals. (Applicable to all students who started the program in or after the academic year 2005-2006). If any of the works were co-authored by other students, the weight should be calculated. The minimum weight required is 1 (Calculation: a work with two student authors should be weighted 0.5 each; a work with three students should be weighted 0.34 each, etc.)

  Before submitting any related results, Doctoral students should fill out the "Application Form for Unlisted Journal & Conference Approval". The form should be verified by the advisor.

  All publishes during duration of study by the Department's doctoral students must meet the following requirements:
  - 1. The advisor must be listed as the co-author (e.g. thesis, author ware, etc.).
  - 2. The University and Department must be listed.

Oral defense may be held after doctoral candidates:

- 1. Fulfill the requirements above
- 2. Recommended by the advisor
- 3. Approved by the Institute Affairs Meeting.

Students who passes the Ph.D. degree examination is a Doctor of Philosophy in Technology Management of NCTU. The degree examination committee should be organized in accordance with the "NCTU Regulations for the Ph.D. Degree Examination."

- XV. Oral examination will be the primary format of the Ph.D. degree examination and the following rules should be enforced:
  - 1. The candidate submits "The Application Form for the Oral Defense for a Dissertation" (Form C04) and "The Check List of the Application for the Oral Defense for a Dissertation" (Form D03).
  - 2. The Examination Committee should be present in person and the examination can be held only if there are at least five committee members present.
  - 3. The Principal of NCTU should appoint one of the committee members except the dissertation advisor as the convener of the committee.
  - 4. The passing grade for the degree examination is 70 points out of a total of 100 points. The exam will be graded only once and the final grade will be the average from all attending members of the committee. If more than one third of the present committees come to a decision to fail the examinee, then the student fails it. The convener of the committee should collect the grading sheets (Form C05) from all attending committees and state the average score on the form entitled "The Result of the Oral Defense for a Dissertation" (Form C06).
  - 5. Should there be plagiarism or fraudulence be found in the doctoral thesis, with the confirmation of the committee, the Student shall be deemed as failing the examination.
- XVI. A Ph.D. dissertation (including the abstract) must be prepared following "The Regulations of NCTU Degree Thesis and Dissertation Format." The softcopy of dissertation, including the abstract, should be uploaded in accordance with polices of "The Filing System of Electronic Thesis and Dissertations in NCTU Library" within one month after passing the degree

- examination. Four hardcopies of the dissertation should be submitted one for the Institute, one for NCTU Library, and two for the Office of Academic Affairs to send to other organizations specified by MOE.
- XVII. Should there be plagiarism or fraudulence be found in the doctoral thesis of those who had already obtained a Ph.D. degree and confirmed by the investigation, the degree shall be revoked and the diploma withdrawn.
- XVIII. The Institute only honors and accepts research papers published in the full name of the Institute and NCTU when the candidate studies in the program. A reprint or photocopy of the published paper should be submitted to the Institute for filing.
- XIX. In the Direct-Ph.D. track, a student who passes the Ph.D. qualifying examination but fails the degree examination can be granted a master's degree only if the dissertation committee agrees that his/her dissertation meets the standard of a master's thesis.
- XX. Items not stated herein are subject to the NCTU Master and Ph.D. Degree Awarding Regulations.
- XXI. These aforementioned policies and procedures have been approved by 2/3 attending members of the Institute Affairs Meeting, confirmed by the Curriculum Committees of the College of Management and NCTU, and validated by the Academic Affairs Meeting of the university. The same procedure will be applied for future revision.

The content of this document originated in Chinese. If there are differences between the Chinese version and its English translation, the Chinese content is always the most accurate.