

**National Taiwan University of Science and Technology (NTUST)**  
**Department of Industrial Management**  
**Regulations for Ph.D. Program**

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## **I. General Regulations**

1. Doctoral program students are expected to complete their studies in two to seven years; The regulation period of study does not include semesters covered by reserved admission, retained enrollment status, or leave of absence.
2. Students should obtain at least 30 credits. Seminar on Industrial Management (1) and (2) with 0 credit must be taken before the deadline of Qualifying Examination. From 2016 fall semester, "Academic Research Ethics" with 0 credit should be completed before the end of the first year. From 2019 fall semester, students who have yet to complete any course which is equivalent to "Production Management", "Operations Management", or "Production and Operations Management" in bachelor or graduate program are required to complete one of the basic professional courses before graduation (determined by 393<sup>rd</sup> Departmental Affairs Meeting). Before the end of the first semester of the first year, students should submit the Ph.D. student study plan to the department office.
3. The Ph.D. student must complete 4 of the 9 core courses: Production Management System, Mathematical Programming, Applied Probability Models, Psychological Foundations in H.F. Engineering, Physiological Foundations in Human Factors, Experimental Design, Project Management, Supply Chain Management, and Concepts and Methods

in Quality Control. For students admitted during Academic years 2008 and 2009, Manufacturing Information Processing as well as Information Technology and Management are also core courses.

4. In accordance with the motion passed during the 154<sup>th</sup> Academic Affairs Meeting, all students admitted starting from 2010 Fall semester (except for international students and EMBA students) are required to take 4 credits of English courses at NTUST. However, students who have passed the equivalent of Stage 2 Intermediary Level of the GEPT after admission may apply for exemption. (According to the 171<sup>st</sup> Academic Affairs Meeting: Overseas Chinese students, students from Hong Kong and Macao and students from Mainland China are not in the category of international students.)
5. Ph.D. students who have already obtained master degrees with credits obtained within five years during the study period in the master degree program, but not included in the minimum credit requirements may apply for credit transfer. Approval will be upon the department's discretion and may not exceed one-half of the minimum credit requirements for graduation. However, this limitation will not apply if said credits were obtained from this university. For double degree students, credit transfers may not exceed two-thirds of the minimum credit requirements for graduation. Students who have already obtained a master degree and have taken Ph.D. courses may apply for credit transfer. Approval for credit transfer will be upon the department's discretion and may not exceed one-half of the minimum credit requirements for graduation. The credits of EMBA courses cannot be transferred due to the contents of both programs(EMBA and Doctoral) are different (determined by 393<sup>rd</sup> Departmental Affairs Meeting).

## **II. Selection of Dissertation Advisor:**

1. The department chair is the academic advisor of all Ph.D. students. The Ph.D. student has to select a dissertation advisor within one month after the beginning of the first semester. The dissertation consent form (refer to Appendix 2) must be stamped by the IM office, signed by the dissertation advisor, and submitted to the IM office. The academic advisor can be selected from IM department faculties, or co-advised by an IM department faculty and a faculty from either the other department in NTUST or adjunct faculty of IM department. The consent form must be stamped by the IM office, signed by the dissertation advisor, and submitted to the IM office.

## 2. Changing Dissertation Advisor:

- (1) If a Ph.D. student wants to change his/her dissertation advisor, he/she must submit a completed application form (refer to Appendix 3) to the IM department office after the request is approved by the current advisor (or department chairman) and the new advisor.
- (2) If a dissertation advisor wants to terminate the instruction to a certain student, the advisor should inform the department office as soon as possible. So that the department office can advise the student to find a new advisor, and then he/she follows the same application procedure.

### **III. Ph.D. Qualifying Examination Regulations**

Ph.D. students have to submit a completed Study Plan before the end of the first semester in the Ph.D. program. A student who fails to submit the Study Plan by the deadline cannot take the Ph.D. qualifying examination.

1. A Ph.D. student must apply for qualifying examination waiver with a journal paper within 3 years after admission. A Ph.D. student should apply to waive qualifying examination with the Application Form for Ph.D. Qualifying Examination to the department office, and the detailed regulations are different according to the admission year:

- (1) Students admitted in and before 2016 fall semester:

The Ph.D. student must satisfy one of the following conditions, and be recommended by the student's dissertation advisor (recommendation letter required). Upon approval, a score of 80 will be recorded as the student's qualifying examination score.

- A. The student has at least one paper accepted or given a chance to revise by an SCI or SSCI journal.
- B. The student has submitted a paper to an SCI or SSCI journal, which has been approved by the Ph.D. Qualifying Examination Committee. The student who intends to fulfill qualifying examination requirements by submitting paper to journals must provide relevant documents such as the submitted journal paper and a progress report for her/his Ph.D. dissertation. Those documents will be reviewed by three full-time faculty members (the advisor might be one of the three) as a committee selected by the Ph.D. Qualifying Examination Committee members. The committee members

will evaluate the student's research capability to decide if the student can continue the Ph.D. program. The committee members will vote for a pass or fail anonymously. The examination is passed if greater than or equal to 2/3 of the committee members vote to pass it. Only Ph.D. students in their sixth semester are eligible for applying to waive the qualifying examination by submitting journal, and students can only apply once.

(2) Students admitted in and after 2017 spring semester:

The student has at least one paper accepted or given a chance to revise by an SCI or SSCI journal, and be recommended by the student's dissertation advisor (recommendation letter required). Upon approval, a score of 80 will be recorded as the student's qualifying examination score. In case of "revised", the student must provide related proof documents to the Degree Review Committee for review. If the submitted paper has undergone substantive review by the journal, and with complete comments, the journal advised the author to resubmit after revising, the paper can be regarded as "revised."

2. The affiliation of the first author must be National Taiwan University of Science and Technology. The paper must be accepted or published after the student has enrolled in the Ph.D. program of the IM department (i.e. after August 1st for fall enrollment; after February 1st for spring enrollment). Further, the paper must satisfy the following conditions:

(1) The student can be the sole author of the paper.

(2) If the paper is coauthored and the student is not the first author, the first author must be a full-time faculty member in NTUST, and the author(s) listed before the student must be the advisor or co-advisor.

(3) If the paper is coauthored and the student is the first author, there is no restriction on the affiliation of the second author.

3. The Ph.D. program student must submit his/her application one week before the end of temporary leave of absence (according to the school academic calendar) in the applicant's sixth semester (2<sup>nd</sup> semester of the 3<sup>rd</sup> year) in Ph.D. program.

#### **IV. Regulations for Publishing Ph.D. Graduation Dissertation**

1. When a Ph.D. student applies for graduation, he/she must have published at

least two papers in journals indexed in SCI or SSCI. One of the papers must be published with the dissertation advisor (which cannot be the paper used for waiving qualifying examination) after the admission to the Ph.D. program, and the first and the second authors must be the student and the full-time dissertation advisor from IM Department (or retired faculty members), and when the first author is the student, the paper must be published only by NTUST and must be a part of the results in the Ph.D. dissertation (determined by 389th Department Affairs Meeting).

2. A Ph.D. student has to present a paper in an international conference in person before graduation. Important international conferences held in a domestic location need to be approved by the department's Degree Evaluation Committee before students submit their papers.

#### **V. Oral Defense of Dissertation:**

1. The Ph.D. student can apply for degree examination only after the dissertation is accepted or published by an international journal indexed in SCI or SSCI (the original acceptance letter must be attached, but if the letter is in email format, it must be signed by the advisor). **Before the oral exam, students must provide proof documents of "Thesis plagiarism check" to all the examination committee members for review; the similarity score should be under 80% in content, excluding the references, appendixes, and surveys; in addition, after deducting the applicant's published thesis, the final similarity score should be less than 20%.**
2. The date for dissertation defense will be announced by the IM department office.
3. The Ph.D. student is allowed to defend his/her dissertation once again if failed in the first time. The Ph.D. student failing in the second run of dissertation defense will be dropped out from the program.

#### **VI. Others**

The regulations will be implemented after approval during the department affairs meeting, as shall all future revisions.