# **Explanations on Degree Requirements** for Ph.D. in Mechanical Engineering, Opto-Mechatronics Engineering, and Energy Engineering

## Department of Mechanical Engineering, National Central University

(For Reference Only. For legal matters, consult the Chinese version)

- I. The following rules are provided in accordance with the *National Central University Rules Governing the Qualifying Exam and Thesis Defense for Master's and Doctoral Degree* enforcement rules as well as the *National Central University Study Regulations*, article 3, and its enforcement rules.
- II. Ph.D. students must have an advisor, complete the required course works and pass the qualifying examination to become a doctoral candidate. After passing the qualification and Degree Examination, students are eligible to apply for graduation.

#### III. The Dissertation Advisor:

- A. Students must select a dissertation advisor from Department of Mechanical Engineering before the 31th of October on their enrollment year, or the committee will assign an advisor for them.
- B. If a student needs to have a co-advisor(s) from other departments, the co-advisor(s) needs to be approved by the Committee of Graduate Student Affairs.
- C. Any changes or addendum of advisors must also be approved by the Committee of Graduate Student Affairs.
- D. When dismiss/dropout condition is met, any changes or addendum of advisors is not allowed.

#### IV. Duration for Study:

Students must complete their study within two to seven academic years.

### V. Course Requirements:

- A. A minimum of 18 graduate credits is required, including 9 credits, at least, imposed by the thesis advisors. Students may take related courses from other departments or other universities according to their research interests. Courses taken from other universities must not exceed 6 credits in total and must be approved by both the student's advisor and the Committee of Graduate Student Affairs if these courses are used to meet the minimum course requirements.
- B. Students must pass "LN4901 technical writing in English" course and the Graduate Seminal course for four semesters.
- C. Credits obtained from out of campus cannot exceed one third of the minimum credits requirement stipulated in this department.
- D. Those who participate in the Industry and Academia Course for Elite Doctoral Degree must also meet the regulations stipulated by "National Central University/Ministry of Education for Industry and Academia project".

### VI. Qualifying Examination:

- A. All Ph.D. students are required to take a qualifying examination, which can only be taken twice. Those who do not pass should be expelled.
- B. Students should take the qualifying examination after completing 12 graduate credits of course work, including 9 credits, at least, imposed by the thesis advisors. Students must pass the qualifying examination within six semesters after enrollment (excluding the period of leave). For those conditionally passed students, 2 more semesters can be extended.
- C. If a student changes his/her advisor on the second year after enrollment, the 6 semester limitation can be extended to 8 semesters.
- D. On changing or adding a co-advisor, students must retake the qualifying examination. If the changes or addendums are before taking the qualifying examination, one additional year is extended for passing the qualifying examination.

#### VII. Degree Examination:

#### A. Publication requirements:

- 1. Students are required to publish at least two professional academic journal papers (with SCI(E) or SSCI impact factor greater than 0.2 within 5 years) or three journal papers (EI, SCI(E) or SSCI) based on their dissertation work.
- 2. Either students or his/her dissertation advisor(s) must be the first author of the forgoing co-authored, published papers affiliated with the Department of Mechanical Engineering /Institute of Opto-Mechatronics Engineering/ Institute of Energy Engineering. At least one of the publications has to be first authored by the student.
- 3. If the aforementioned papers are in the form of short communication, it shall be approved in advance by the Committee of Graduate Student Affairs.
- 4. Participating in the Industry and Academia Course, those who have one invention patent with NCU as a patentee are eligible for claiming one SCI paper after approval of the Graduate Committee.
- B. Students should give a public presentation in English before applying for a doctoral thesis defense. Eligible candidates must submit the thesis defense application form and relevant materials 15 days before the date of their thesis defense.
- C. Formation of the Doctoral Thesis Defense Committee should follow the *National Central University Rules Governing the Master's and Doctoral Degree Qualifying Exam and Thesis Defense.*

VIII.Matters not covered by these rules shall be referred to the Chinese version of "Regulations and Degree Requirements for Ph.D. in Mechanical Engineering, Opto-Mechatronics Engineering, and Energy Engineering Department of Mechanical Engineering, National Central University".