

Requirements of the Ph.D. Program of the Institute of Microbiology and Immunology, National Yang Ming University*

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*This English translation of National Yang Ming University Bylaws is provided as a reference for English readers. The original text (in Chinese) is the sole authoritative text.

- I. The name of the institute, as approved by the Ministry of Education, is the Institute of Microbiology and Immunology (IMI), National Yang Ming University (hereinafter "the Institute").
- II. Admission and related matters shall be handled in accordance with the rules stated in National Yang Ming University's (hereinafter "the University") admission brochure of the respective academic year.
- III. Acceptance and registration
 - i. Student's acceptance of admission and official registration shall be handled in accordance both with the rules stated in the admission brochure of the respective academic year and with the University's existing rules governing admission, registration, and other related matters.
 - ii. Students who have been admitted to the program shall formally accept the admission by being present at the Institute, where they shall provide master's diploma before the required deadline for the Institute to verify their qualification. Fail of comply shall result in denial of final admission.
 - iii. Forged diplomas, once spotted, shall result in the holder's expulsion from the program.
- IV. Master students' directly advance to the Ph.D. program
 - i. Application
 1. Application for directly advance to the Ph.D. program is open to master

students who excel in academic performance and who are deemed to possess outstanding potential for research.

2. Master students who have already applied for the degree examination shall not apply for an advance.
 - ii. Application shall be handled in accordance with the Institute's "Principles for the Review of Graduate Student's Application for Advance to the Ph.D. Program." Formulation and amendment of the rules are done in the Institute's administrative meeting and become effective subsequent to approval by the academic heads' meeting.
 - iii. On condition that the request has been approved by both the Institute's administrative meeting and the university president, students who have advanced to the Ph.D. program may resume courses in their former master program. The time that they have already spent in the Ph.D. program will not be constituted as part of their studies the graduate program.
 - iv. In cases where students who advance to the Ph.D. program fail the doctoral degree examination, a master's degree may be conferred on condition that their doctoral dissertation is considered qualified for master's thesis by the Institute's doctoral degree examination committee.

V. Curriculum

Required courses for **Native students**:

1. "Advanced Microbiology and Immunology -- Immunology" (2 credits),
"Advanced Microbiology and Immunology – Virology" (2 credits),
"Advanced Microbiology and Immunology – Bacteriology" (2 credits)
2. One of the following courses:
 1. "Research Methods for Modern Microbiology & Immunology" (3 credits).
 2. "Molecular Biology" (3 credits),
 3. "Cell Biology"(3 credits).
3. Upon completion of required courses, students must enroll for "Teaching in Microbiology and Immunology" course for two semesters (2 credits)

Required courses for **International students**:

1. "Advanced Microbiology and Immunology – Immunology" (2 credits),
"Advanced Microbiology and Immunology – Virology" (2 credits),
"Advanced Microbiology and Immunology – Bacteriology" (2 credits)
2. One of the following courses:
 1. "Experimental techniques for biomedical science " (2 credits)

2. "Molecular Cell Biology "(2 credits)
3. International students must enroll in the courses "Chinese Conversation level 1" and "Chinese Conversation level 2" (0 credit, offered by Internatioal Health Program).
4. Upon completion of courses "Advanced Microbiology and Immunology– Immunology 、 Virology 、 Bacteriology", , and "Chinese Conversation" levels 1 and 2, students must enroll in the course "Teaching in Microbiology and Immunology" for two semesters (2 credits).

The following guidelines apply to both Native and International students

- i. It is required to enroll in the elective course "Laboratory Rotation" in the first semester upon admission (1 credit)
- ii. Students must enroll in the elective course "Seminars in Microbiology and Immunology" for 10 semesters (10 credits).
- iii. Upon commitment to thesis advisor, students must enroll in the course "Microbiology and Immunology Research" every first semester of the academic year. For those master students who directly advance to the Ph.D. program, they also have to fulfill this during their time in the master program. However, a waiver of the regulation is granted to Ph.D. students who have scheduled a Ph.D. candidacy examination for the semester.
- iv. Enrollment in courses and subsequent changes shall be handled in accordance with the University's bylaws and related regulations.
- v. When enrolling course, students should seek their advisor's counsel and have him/her signed on the registration form before submitting it to the director of the Institute for final approval.

VI. Time limits of study and required credits

- i. The period of study is two to seven years.
- ii. To obtain the degree, students must complete at least eighteen credits, including all required courses. For master students who directly advance to the Ph.D. program, at least thirty credits must be completed.
- iii. Credits of the dissertation shall not be included in the required credits for the Ph.D. degree.
- iv. Master students who directly advance to the Ph.D. program do not need to retake the required courses if they have already completed previously in the graduate program.
- v. Students who have obtained a master's degree at institutes of related fields do not need to retake the required courses if they have already completed previously; however, a waiver of requirements can only be granted to those

who have completed the exact same courses as the required ones offered by the Institute.

- vi. Requests for voluntary suspension shall be handled in accordance with the University's bylaws and related regulations.

VII. Examination and grading

- i. Examinations include quizzes, midterm and final. Quizzes are given by the instructor at irregular intervals, while midterm and final are held in ways dictated by the instructor.
- ii. Final grade is provided by the instructor within two weeks after the final. The instructor shall submit the grades to the Institute's office, where the grades are forwarded to the Registration Section of the Office of Academic Affairs.
- iii. In cases where the instructor detects mistakes or omissions in the submitted grades, he/she may request grade correction in writing by providing related proofs. The request shall be approved, in proper sequence, by director of the institute, dean of the college, and dean of academic affairs; after all the aforementioned officers have approved the request, correction is to be made by the Office of Academic Affairs prior to a reconfirmation by the Academic Affairs Meeting of the following semester.
- iv. Grades are given in percentage scores, where the full score is one hundred points with a passing grade of seventy points. Conduct, on the other hand, is indicated by means of four categories (A, B, C & D), where students whose indication is below B (i.e. C or D) fail.
- v. Students who fail any required course must retake the course; they are subject to expulsion if their second attempt still fails. Students who are graded below B in terms of conduct are also subject to expulsion.
- vi. In cases where students fail to participate in major exams because of duty, illness or major accident, the University's related regulations shall apply.

VIII. Dissertation advisory

- i. Dissertation advisory committee
 1. The Institute arranges for each of its Ph.D. student a dissertation advisory committee that consists of three to five members, who must be assistant professors, assistant research fellows, or above. The composition of the committee may change during the period of advisory.
 2. Thesis adviser of each Ph.D. student in the program must be a full-time or part-time assistant professor or above of the Institute. Throughout the period of the student's study, the advisor is responsible for providing

academic guidance in such aspects as course enrollment, literature reading, conducting experiment, and dissertation writing. Advisors who do not perform their duty shall be deprived of the right to advise students in the future.

ii. Laboratory rotation and choice of laboratories

1. Upon admission (and return from leave of absence), Ph.D. students may start their laboratory rotation immediately. It is required to rotate in at least two laboratories, minimal one month each. Grades will be average scores given by hosting laboratory P.I.s.
2. For each academic year, each member of the Institute's full-time faculty may accept one Ph.D. student, or no more than two students within two years. Total number of students each full-time faculty member can accept is eight*.

*Exceptions as followed:

Under these conditions, the accepted students are **not counted** toward the yearly limitation:

- a. Master students directly advance to the Ph.D. program.
- b. The faculty member may advise more than one student on condition that the student was advised previously in the master program, or that the student acts as his/her research assistant. In such cases, however, the professor may not become the thesis adviser of any other new Ph.D. students.

Faculty members **are not allowed** to accept new students if:

- a. There are two or more students who have been admitted for seven years
 - b. There are one or more students who have been admitted for eight years
3. Adjunct faculty members can accept one Ph.D. student every two years
 4. In the beginning of each fall semester, the Institute shall announce the names of the full-time and part-time faculty members who may advise Ph.D. students for the year. Ph.D. students must choose their advisor by December 31st of the respective year and submit a consent form signed by the advisor to the Institute's office before the aforementioned date. Under special circumstances, this procedure may be delayed until the beginning of the spring semester with the approval of the director of the Institute.

iii. Changing laboratories

1. Only when Ph.D. students have spent more than six months in the previous laboratory can they request for changing laboratories.
2. The target laboratory for change must be hosted by members of the

Institute's full-time or part-time faculty.

3. Procedures for changing laboratories:

Discussion with advisor or director → acquisition of advisor's consent form to indicate his/her approval for the Ph.D. student to leave the current laboratory and, subsequently, the director's signature on the consent form → acquisition of a consent form signed by the hosting professor of the target laboratory for change and, subsequently, the director's signature on the consent form.

4. Regulations for faculty members:

The faculty member who is receiving transferring student should inform and seek the approval of the director of the Institute.

iv. Dissertation progress report

1. After having chosen a laboratory, students must give a presentation of dissertation progress in the first semester of each academic year; they may choose to present one more time in the second semester. The regulation also applies to master students who directly advance to the Ph.D. program during their time in the master program. However, a waiver of the regulation is granted to Ph.D. students who have scheduled a Ph.D. candidacy examination for the semester. At least one progress report must be given before dissertation writing starts.
2. For second-year students, the progress report must take place by November 30th; third- and fourth-year students: by December 15th; fifth-year students and above: by December 31st.
3. In general, presentation must be scheduled within designated period. In cases where clashes exist in committee members' schedules, a delay may be allowed. If the advisor deems that the student has not collected enough data or is not well-prepared, he/she may decline the student's request for presentation in the time limits; such delay shall be dealt with in accordance with related regulations.
4. In order for the office to arrange an appropriate venue, students shall inform the office of the arranged time and names of committee members at least one week in advance. In general, the venue will be arranged according to the availability of classrooms.
5. Grading
 - Pass with a manuscript accepted for publication: 95 points
 - Pass: 85 points
 - Pass on the second attempt or pass an overdue presentation: 75 points

Fail: 60 points

No presentation by the end of semester: 0 point

IX. Ph.D. qualifying examination

- i. The examination shall take place within the third year of study. Students who pass the examination shall receive the title of Ph.D. candidate.
- ii. To participate in the examination, students must complete all the courses required by the Institute.
- iii. Students who fail the first attempt of examination within the designated time frame may take the examination one more time. Students who fail the second attempt shall be expelled from the program.
- iv. Application, cancellation and grade registration of the Ph.D. candidacy examination are handled in accordance with related regulations of the University.
- v. Committee of Ph.D. qualifying examination
 1. The committee consists of five members, all of whom are assistant professors, assistant research fellows or above. The members shall include at least one full-time faculty member of the Institute and at least two outside members. The advisor of the Ph.D. student may not be included in the committee.
 2. The advisor shall discuss with the director of the Institute to decide on, with director's approval, the faculty in charge of the qualifying examination.
 3. The professor in charge of the examination shall be responsible for organizing the committee and for hosting the examination. He/She shall inform the office of examination time and names of committee members at least one week in advance.
- vi. Date of examination

Fall semester: by December 30th. Postponement is possible only with the professor-in-charge's and the director's approval, and, after postponement, the examination must be held no later than January 15th.

Spring semester: by May 15th. Postponement is possible only with the professor-in-charge and the director's approval, and, after postponement, the examination must be held no later than June 30th.

If the student is already in the sixth semester of his/her study, the examination must be held by December 15th (fall semester) or by May 30th (spring semester).

Starting from the students admitted in 2011, each student's Ph.D. candidacy

examination must be held before the first semester of the third year of study.

vii. Examination

1. Committee members must attend the examination in person and may not appoint any surrogate to act on their behalf.
2. The examination may only be held if all committee members are present. If an examination is held without committee member's full attendance, the grades shall not be recognized or registered.
3. Grading: each committee member shall decide whether the student "passes" or "fails" the examination. Four or five "passes" out of five votes shall constitute the student's passing of the examination; three "passes" and two "fails" shall be reckoned as "pending"; two or one "passes" shall result in the student's failing the examination.

As a result, only such remarks as "pass," "pending," and "fail" may be given to the student. Students who receive the remark of "pending" must either provide supplementary contents designated by committee members within two weeks or host the examination one more time, where only four or five "passes" shall constitute the student's passing the examination. Students who pass the examination without having to provide supplementary contents shall be given a grade of 95 points; those who pass with either supplementary contents provided or on the second attempt shall be given 85 points; those who fail shall be given 65 points.

viii. Related matters

1. The qualifying examination is to write a "research proposal". The proposal shall be written in English. An oral examination will be held subsequently.
2. There is no limit to the scope of topics. Students shall discuss the topic of the research proposal with their advisor.
3. During the preparation for the examination, students may seek all possible assistances, including discussion with advisor, professor-in-charge, other faculty members and peers, rehearsal, and refinement of English writing.
4. In cases that the student fails the first attempt, he/she may change topic or seek another professor-in-charge in accordance with the rules stated in IX.
5. Other related matters shall be handled in accordance with the Institute's "Summary of the Regulations for the Ph.D. Qualifying Examination on Research Proposal and Its Related Matters." Formulation and amendment of the summary are done in the Institute's administrative meeting.

X. Degree examination

- i. Within the designated time frame, Ph.D. candidates shall apply for degree

examination by submitting an application form as well as transcripts of academic performances and certificate of qualifying examination passing. After being approved by the student's advisor and by the director, the form shall be forwarded to the Office of Academic Affairs together with a list of members of the degree examination committee together with their C.V. s and list of publications).

ii. Applicant's qualification

1. Applicants shall have spent at least two years in the Ph.D. program; for those who directly advanced to the Ph.D. program from the master program shall have spent at least one year in the master program and two in the Ph.D. program, totaling three years in the Institute.
2. Applicants must be those who have completed all required courses, as well as the six credits from the courses stated in V. ii.
3. Applicants shall have obtained at least eighteen credits; for those who directly advanced to the Ph.D. program from the master program shall have obtained at least thirty credits, including eighteen completed in the Ph.D. program. Credits of the dissertation are not included.
4. Student who have published at least one paper in SCI journals (the student must be the first or co-first author of the paper, and the Institute must be listed as student's affiliation).

Note: in cases where the student has submitted his/her paper but has not yet been notified by the publisher of acceptance, the student may apply for degree examination. However, the application shall be withdrawn, and hence no examination be held, if the paper has not been accepted by the scheduled date of examination.

iii. Degree examination committee

1. The committee shall consist of five to nine members; the members shall include at least one full-time faculty member of the Institute, and at least one third shall be outside members. All members shall elect one member other than the advisor of the student to act as the convener.
2. Committee members shall be assistant professors, assistant research fellows, or above.
3. The student's advisor shall provide a list of recommended members of the degree examination committee with their C.V.s and lists of publications attached. The list shall be reviewed by the director; when necessary, the director may convene a review committee to contemplate on the choice of committee members. Letter of appointment shall be given to committee members by the university president after the list of recommendation is

confirmed by dean of the college, dean of academic affairs, and the president himself/ herself. The review committee shall consist of five members, all of whom are the Institute's full-time or part-time faculty members, none of whom is the student's advisor or any of the members of the degree examination committee.

4. Once decided, members of the degree examination committee may not change. In cases where a change is inevitable, the change must be proved by the director before the examination takes place.

iv. Dissertation writing

1. A progress report must be given before dissertation writing starts. The student shall not start writing dissertation before the dissertation advisory committee has agreed that he/she has finished the experiment and may start writing the dissertation. If the advisory committee deems that the student has not finished the experiment, the members must specify the experiment that needs completion. After the student has finished the specified experiment and has gained his/her advisor's consent, he/she may start dissertation writing. In cases not all necessary procedures are fulfilled, the student must give one more progress report for the advisory committee to decide whether he/she may start writing.
2. The advisory committee shall consider the student's qualification in the following two aspects:
 - a. The student has published at least one SCI paper in which the student must be the first author.
 - b. The committee, together with the student's advisor, shall decide whether the student's dissertation writing and research abilities have met the standard required for a Ph.D. degree.
3. In principle, the dissertation shall be written in Chinese from left to right. In cases where plagiarism or forgery is detected by the examination committee, the student shall receive 0 point for the grade of his/her dissertation.
4. Drafts must be written in accordance with designated formats. After being approved by the advisor, a copy of the draft must be sent to each committee member one week before the degree examination.

v. Date of examination

1. Fall semester: by January 31st; spring semester: July 31st.
2. In cases where a student who has applied for a degree examination fails to hold the examination within the semester, he/she may submit a cancellation form signed by the advisor and the director through the office

to the school before the due day (i.e. January 31st or July 31st).

3. Students who fail to hold the examination without cancellation in advance shall receive 0 points for the grade of his/her degree examination.

vi. Degree examination

1. The examination is conducted orally. In order for the office to arrange an appropriate venue, the student shall inform the office, as well as all the Institute's full-time and part-time faculty members, of presentation time at least one week in advance. In cases where the student fails to make the notification beforehand, the grade shall not be recognized or registered.
2. Committee members must attend the examination in person and may not appoint any surrogate to act on their behalf.
3. The examination may only be held if more than two thirds of committee members in total of at least five members are present, and only if more than one third of the present members are outside members. If not complied, the grades shall not be recognized or registered.

vii. Grading

1. Grade of the degree examination is given in percentage scores, where the full score is one hundred points and standard for passing is seventy points.
2. The final grade is the average of scores given by all present members; however, in cases where more than one third of all members provide a failing score, the student shall fail the examination.
3. In cases where the examination committee specifies conditions for passing, the examination shall only be complete after the committee has decided that the student has met the requirements according to the conditions.

viii. In cases where the student fails his/her degree examination before the period of study is due, he/she may apply for one more degree examination. If the second attempt still fails, the student shall be expelled from the program.

ix. In cases where master students who directly advanced to the Ph.D. program fail the doctoral degree examination, a master's degree can be conferred on condition that their doctoral dissertation is considered qualified for master's thesis by his/her doctoral degree examination committee.

x. After the degree examination, the Institute shall submit the student's grade to the Office of Academic Affairs for registration before designated due (i.e. February 15th for the fall semester, while August 31st for the spring semester).

XI. Graduation

- i. After passing the degree examination, the student may complete procedures required for graduation by February 15th (fall semester) or by August 31st (spring semester).

- ii. After passing the degree examination, the student must either revise the draft in accordance with committee members' suggestion or provide explanation for non-revision. The final draft may only be submitted after the advisor's approval and after all committee members have signed on the final validation form.
 - iii. Binding of dissertation
 - 1. The final draft of the dissertation shall be bound either as a hardcover or as a paperback book in the format designated by the Ministry of Education (26.2 cm x 19 cm).
 - 2. Copies of the dissertation shall be submitted to both the school library and the Office of Academic Affairs in accordance with the University's regulations. In addition, a copy must be given to the Institute's office and to each committee member.
 - iv. The electronic edition of the dissertation shall be submitted in formats designated by the school library.
 - v. Originals of final validation form and grade report card shall be signed by the student's advisor and by the director. Photocopies of the documents shall be ineffective.
 - vi. The graduation procedure form shall be signed firstly by the advisor (as an indication of his/her consent for the student to leave the laboratory) and then by the director.
 - vii. Students who have completed iii, iv, v and other related procedures may obtain a diploma and be conferred a Ph.D. degree.
 - viii. Students who fail to complete the procedures within the time frame shall receive "Incomplete" on his/her report card as the remark of the Office of Academic Affairs. In such cases, students whose period of study is not exceeded the time limits of study must register for the next semester and complete the procedures required for graduation.
- XII. Date of commencement: in accordance with the date on the validation form for the dissertation. In cases where the student has completed all courses required for graduation, passed the degree examination, but has not yet obtained the validation form, the Office of Academic Affairs may issue a certificate of passing degree examination with the approval of advisor, director, dean of college and dean of academic affairs. The date indicated on the certificate is based on the date on which the student passed the degree examination.

XIII. Matters not covered in the current document shall be handled in accordance with other related regulations of the University.

XIV. Formulation and amendment of the requirements are done in the Institute's administrative meeting.