

**Chung Yuan Christian University**  
**Department of Biomedical Engineering Doctoral Program**  
**Academic Guidelines for Graduate Students**

March/17th, 2021 Passed by the 1st Academic Affairs Meeting, spring semester, Academic Year 2020-2021.  
 June/30th, 2021 Revised by the 2nd Academic Affairs Meeting, spring semester, Academic Year 2020-2021.  
 July/20th, 2022 Revised by the 2nd Academic Affairs Meeting, spring semester, Academic Year 2021-2022.

Article 1 This Academic Guidelines of the department are formulated in accordance with the “CYCU Regulation Governing the Determination of Each Degree’s Name, Conferral of Degrees, and Alternatives to Submission of a Master's Degree Thesis or Doctoral Dissertation”.

Article 2 The Chinese and English names for the Ph.D. degree awarded by this department are as follows:

The title of the department in Chinese & English	Degree conferring	
	Name of Chinese & English	Abbreviation
生物醫學工程學系	工學博士	
Department of Biomedical Engineering	Doctor of Philosophy	Ph.D.

Article 3 Please refer to Appendix I for the Table of Curriculum & Credit for Ph.D.

Article 4 The department's compulsory courses include "Seminar", which is required for four semesters. Elective courses in the department must fulfill 18 credits, along with 2 credits of general elective courses. The elective courses in the department must include the following:

- A. Introduction to Medical Engineering (graduate level).
- B. Physiology (graduate level).
- C. Engineering Mathematics (undergraduate level).

If a student has previously completed each of the above courses for at least 3 credits, they may apply for course waivers. However, they must still make up the required credit hours.

Article 5 Thesis Advisor

- I. Doctoral students are required to choose a qualified full-time faculty member from the department as their thesis advisor before the commencement of their first semester of enrollment.
- II. If graduate students should need to change their thesis advisors for any reason, they must also submit a "Change in Thesis Advisor Application Form."
- III. Graduate students should first discuss course selection with their advisor. The list of selected courses and transcripts of records must be signed by their advisor. Students must have at least 2 discussions with their advisors, which should be recorded in the “Interaction between Graduate Students and Advisors” or “Brief of Interaction between Graduate Students and Advisors”, to be submitted to the Department for

review. Student records of graduate students must be returned to the Department upon graduation.

#### Article 6 Qualification Examination for Doctoral Candidates

- I. Doctoral program students may begin taking the qualification examination after one semester of enrollment or direct admission to the doctoral program. The examination includes a written test, submission of a thesis proposal, and an oral defense of the proposal. The written test must be passed within four years of enrollment (excluding periods of leave). The thesis proposal defense must be passed in the semester prior to applying for the degree examination. Students who fail to meet these deadlines will be expelled from the department.
- II. The qualification examination is organized by the department's Qualification Examination Committee in accordance with the "Implementation Guidelines for the Department's Qualification Examination." The committee is composed of five to seven full-time assistant professors or higher-level faculty members nominated by the Department Affairs Meeting, with the director serving as the convener and chairperson.

#### Article 7 Review of Areas of Expertise

- I. The thesis (proposal) review includes an examination of whether it aligns with the areas of expertise of the Department including biomedical electronics, biomedical information, biomedical imaging, clinical engineering, biomedical materials, biomechanics, tissue engineering, stem cells, or other biomedical engineering-related expertise.
- II. The Review Committee which checks the areas of expertise is composed of at least 3 advisors and scholars who are experts in the student's field of study, inside or outside the university. If a thesis submitted prior to a PhD exam deviates from the original area of expertise, the advisor should restart the examination mechanism.
- III. If there are doubts about the examination results, the department chairperson shall convene an examination meeting and invite the thesis advisor to explain. If it is determined that the results still do not conform to the specialization, the thesis must be revised to align with the department's specialization. If the student disagrees with the examination results, they may submit written materials and explanations to apply for a reexamination within their affiliated college.

#### Article 8 Doctoral Thesis

- I. The doctoral thesis must be written in English.
- II. The main content of a thesis must be completed during the doctoral program.
- III. To publish a paper or patent, the student must meet one of the following criteria: (a) Two SCI-indexed journal papers. (b) One SCI journal paper and one invention patent (with different content). (c) One SCI journal paper with a journal score of more than 5 points or belonging to Q1. For SCI papers, the student must be the substantive first author, and the thesis advisor must be the corresponding author. The advisor is excluded from being the primary contributor for patents.

- IV. An international conference proceeding or a domestic article: The student must be the first author, with his advisor as the co-author during the study period. The conference proceeding must be published under the name of the Department.
- V. All the above documents and the "Doctoral Program Study Record Form" must be submitted to the Academic Committee for approval at least one month before the degree examination. The Academic Committee is composed of full-time assistant professors or higher-level faculty members from the department, with the department chairperson serving as the convener.
- VI. A thesis must be checked on the thesis comparison system, with a comparison report provided for reference by the Oral Exam Committee.

Article 9 Degree Examination

- I. After filling in the relevant forms, stating that all requirements, including the duration of the study, course credits, qualification examination, and review of Ph.D. thesis, have been satisfied, with the advisor's preliminary review passed, students can apply to form a Thesis Exam Committee. The degree examination is an oral exam.
- II. The composition of the Ph.D. degree examination Committee adheres to the CYCU's regulations.
- III. The first half of a degree examination is a public presentation. The time, location, and thesis topic of the presentation should be displayed in the Department within a week prior to the examination. A presentation is welcome to anyone to attend and ask questions. The second half is a secret examination, attended only by the Examination Committee members.

Article 10 All other relevant matters not covered in these policies shall be governed by the "CYCU Academic Policies" and relevant regulations.

Article 11 This guideline has been carried out in the review of the Academic Affairs Meeting. Any revision to this guideline will follow the same procedures.  
This regulation is applicable to Bachelor students enrolled from the academic year 2022-2023.

CYCU Department of **Biomedical Engineering Ph.D.**

Table of Curriculum & Credit

(Applicable to students enrolled in the 2023-2024 academic year)

Course Name	Characteristic	Credits	Renewal subjects & conditions for continued study	
			Course Name	Limitation
Compulsory Course	Thesis	Full	12(6,6)	
	Seminar(I)	Full	2(1,1)	
	Seminar(II)	Full	2(1,1)	
	<b>Total</b>		<b>4</b>	

Structure table of graduation credits

Category	Credits	Instruction :
1、Compulsory Course	4	<b>The School Regulations :</b> 1. From the academic year 2016, foreign graduate students are qualified to graduate with taking Mandarin courses and passing the TOCFL test. 2. For the courses and grades issues, please consult the related regulations according to “CYCU Academic Policies”.
2、Elective Course	18	
3、General Education for Graduate students	2	
Minimum credits required for graduation ( <b>exclude thesis/dissertation</b> )	24	

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