# Chung Yuan Christian University Department of Biomedical Engineering 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.

- 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 Master's degree awarded by this department are as follows:

The title of the department	Degree conferring			
in Chinese & English	Name of Chinese & English	Abbreviation		
生物醫學工程學系	工學碩士			
Department of Biomedical Engineering	Master of Science	M.S.		

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

Please refer to Appendix II for the Table of Curriculum & Credit for Pro. Master. (Hereinafter referred to as the In-Service Master Program)

#### Article 4 Curriculum Requirements

- I. "Seminar" is a mandatory course, ranging from two to four semesters, with one credit per semester. Students who complete their degree examination in two semesters must take two semesters, three semesters for three, and four or more semesters for four.
- II. Students in the department must complete 18 credits of elective courses, with no fewer than 9 credits taken within the department. Master's program graduate students must also complete 2 credits of general electives.
- III. Students who have not taken Physiology (or related courses) and Engineering Mathematics (or related courses) for at least 3 credits at the undergraduate level must take at least 3 credits of relevant courses approved by the department.
- IV.If a student has previously taken the aforementioned courses, they may apply for exemptions, but they must still make up the required graduation credits.
- V. In-Service Master's program students who use a technical report in place of a thesis must also complete an additional 3 credits of elective courses.

#### Article 5 Thesis Advisor

- I. Master's program graduate students must select their thesis advisor before the end of their first year of study.
- II. In-Service Master's program students must select their thesis advisor and decide whether to write a thesis or use a technical report before the end of their second year of study.

- III. In the event of changing the academic advisor, students must submit the "Change of Academic Advisor Agreement Form" at least one year before graduation.
- IV.Course selection by the student must be discussed with the thesis advisor. The advisor must sign the course selection list and semester transcript. There must be at least two discussions per semester with the advisor, and the records of these discussions must be kept in the "Student-Faculty Interaction Record" or "Student-Faculty Interaction Record Summary" and submitted to the department for review. The student's academic record folder must be returned to the department upon graduation.

#### Article 6 Academic Presentation

Master's program graduate students must present at least one paper at a domestic or international journal or conference or submit an invention patent application before graduation. If it is a conference paper, the student must be the first author, and the advisor during the research period must be a co-author, and it must be published under the department's name. Only one master's program graduate student may use one paper for the graduation qualification review.

#### Article 7 Degree Thesis

- I. A thesis must be submitted one semester before the degree examination and assessed by oral exam.
- II. A thesis must be checked on the thesis comparison system, with a comparison report provided for reference by the Oral Exam Committee.

#### Article 8 Review of Areas of Expertise

- I. The review of the thesis (proposal) includes an examination of whether it aligns with the specialized field. The department's specialized areas include Biomedical Electronics, Biomedical Informatics, Biomedical Imaging, Clinical Engineering, Biomedical Materials, Biomechanics, Tissue Engineering, Stem Cells, or other fields related to Biomedical Engineering.
- II. The examination of the specialized area should involve at least three members, including the thesis advisor and experts from inside and outside the university with specialized knowledge in the student's research area. If the thesis deviates from the originally examined specialized area before the degree examination, 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 students have objections to the examination results regarding the conformity of their thesis to the professional field, they may submit written documents and explanations to apply for a reexamination through their affiliated college.

#### Article 9 Technical Report

I. Students of the In-Service Master's Program who submit a technical report instead of a thesis must do so 3 semesters before graduation.

- II. A series of 3 technical reports must be completed before graduation, with at least 1 technical report completed per semester. Technical reports can be reviewed in writing, provided that the final review includes written and oral means.
- III. The review of technical reports is carried out by two (inclusive) or more Review Committee members. The qualifications of the Review Committee members are the same as those of the Oral Examination Committee members.
- IV. The subject and content of a technical report must meet the Department's areas of expertise, with the theoretical analysis being innovative and the basis meeting one of the following requirements:
  - A. Achievement in patent, technology transfer, or innovative research and development.
  - B. Achievement in industrial-academic cooperation, technology application, or practical improvement projects with specific contributions.
  - C. Case studies of professional technologies or fields that have been compiled into a report that contributes comprehensive and unique insight.
- V. Information required: For review, a technical report written in accordance with Article 10 of the "Regulations Governing Various Degree Titles and Recognition of Substitutes for Thesis of Master's Degree and Graduate Student Examination Regulations" must be submitted.
- 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 202-2022.

## CYCU Department of Biomedical Engineering Pro. Master

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	6(3,3)		
	Seminar(I)	Full	2(1,1)		
	Seminar(II)	Full	2(1,1)		
	Fundamental of Biomedical Engineering(I)	Half	2		
	Fundamental of Biomedical Engineering(II)	Half	2		
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	Total		8		

### Structure table of Graduation Credits

Category	Credits	Instruction:	
1 · Compulsory Course	8	The School Regulations:	
2 · Elective Course	18	1. From the academic year 2016, foreign	
Minimum credits required for graduation (exclude thesis/dissertation)	26	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".	

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