



長庚大學
Chang Gung University

生物醫學研究所
Graduate Institute of Biomedical
Sciences

博士班學生手冊
Ph.D student's guideline

一〇六學年度
2017~2018

一〇六學年度博士班學生在學期間提報日程表
Schedule checklist for PhD student of 2017

姓名 Name	學號 Student ID	指導教授 Advisor	實驗室分機 Laboratory extension					
學生在學期間日程表 Required Documents from PhD students		完成日期 Completion Date						
指導教授確認書 Thesis Advisor confirmation document (signed)								
第一學期選課確認單 First semester course confirmation sheet								
第二學期選課確認單 Second semester course confirmation sheet								
第三學期選課確認單 Third semester course confirmation sheet								
第四學期選課確認單 Fourth semester course confirmation sheet								
第五學期選課確認單 Fifth semester course confirmation sheet								
第六學期選課確認單 Sixth semester course confirmation sheet								
第七學期選課確認單 Seventh semester course confirmation sheet								
第八學期選課確認單 Eighth semester course confirmation sheet								
(第九學期起仍須繳交選課確認單) Ninth semester (and above) course confirmation sheet								
進度報告 (每年提出) Annual Progress Report	※生化分生組、生理藥理組、生技組、天然藥物學組： Division of Biochemistry & Molecular and Cellular Biology, Physiology & Pharmacology, Medical Biotechnology, Natural Products 入學後第五學期開學前完成(日期以當年行事曆公告開學日) Need to complete the thesis proposal report before the start of the fifth semester. Following that, annual progress reports are due before the start of the semester.							
	※微生物組： Division of Microbiology 入學後第三學期開學前完成(日期以當年行事曆公告開學日) Need to complete the thesis proposal report before the start of the third semester. Following that, annual progress report before the start of the semester.							
資格考試 qualifying Exam	第六學期結束前通過博士候選人資格考試 Need to pass the PhD qualifying exam by the end of the sixth semester							
完成教學相關經驗(至少一學期)，1/15 及 8/15 日前申請。 Completion of teaching experience (at least one semester), apply before January 15 and August 15 every year.								
參與博、碩士壁報競賽兩次 (日期於當年度公告) Proof of having participated twice in the Institute's poster presentation contest.								
通過英文畢業門檻 Pass the English requirement								

<p>學位論文口試第一階段申請(申請時間上學期開學日後至 11 月 30 日止，下學期開學日後至 4 月 30 日止)</p> <p>PhD thesis oral defense: The first stage (apply from the start of semester until November 30 for the fall semester, or until April 30 for the spring semester)</p>		
<p>學位論文口試第二階段(申請時間上學期開學日後至 12 月 31 日止，下學期開學日後至 5 月 31 日止)</p> <p>PhD thesis oral defense: The second stage (apply from the start of semester until December 31 for the fall semester, or until May 31 for the spring semester)</p>		
<p>學位論文口試評分總表送教務處研教組(7/31 日或 1/31 日前)</p> <p>The final score of the PhD thesis defense needs to be delivered to the Office of Academic Affairs (before July 31 or January 31)</p> <p>學位論文口試評分表正本及口試評分總表影本送所辦公室</p> <p>One photocopy of the original oral defense score sheet and the final statement of the PhD thesis defense needs to be delivered to and kept in the GIBMS office.</p>		
<p>依規定完成離校手續單(8/15 日或 2/15 日前送教務處)，並包括本所要求事項 [離所申請表(含指導教授簽核)、繳交論文一本至所辦公室]。</p> <p>Completed the “Leaving school” sheet in accordance with the regulations (and delivered to the Office of Academic Affairs before August 15 or February 15), including the required items for the GIBMS (the “Leaving the Institute” application form, (has Advisor’s signature), one copy of the PhD thesis for the GIBMS office).</p>		

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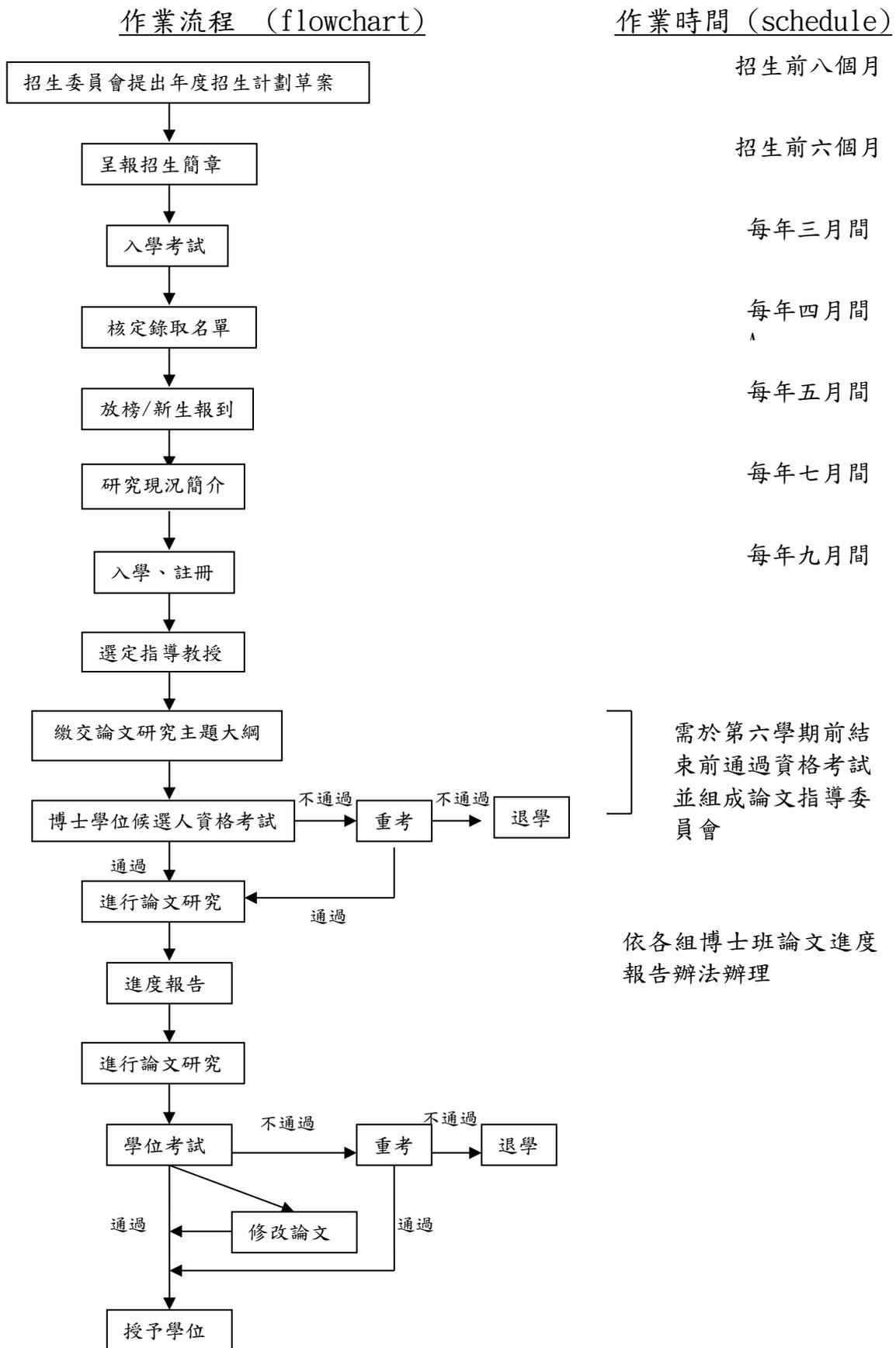
一、生物醫學研究所博士班教育執行辦法

GRADUATE INSTITUTE OF BIOMEDICAL SCIENCES (GIBMS) PHD EDUCATION POLICY

- (一)名稱：依教育部核定名為「長庚大學生物醫學研究所」，(以下簡稱本所)，英文為 Graduate Institute of BioMedical Sciences, Chang Gung University。
Name: As approved by the Ministry of Education, the official name of the institute is "The Graduate Institute of Biomedical Sciences" (hereinafter referred to as GIBMS), Chang Gung University.
- (二)宗旨：本所成立之宗旨為培育「理論與實務結合」之專業獨立的生物醫學研究人才。
Purpose: The purpose of the GIBMS is to foster and educate students to be professional and independent biomedical scientists that can integrate theoretical and practical knowledge.
- (三)組織：本所設有所長及各委員會，所長負責綜理、協調本所相關業務，並對外代表本所。各委員會則負責教育政策、課程內容之制定與教育工作之推行。
Organization: The GIBMS consists of a Director and various committees. The Director is responsible for the overall management, the coordination of related business and the representation of the institute. Each committee is responsible for the education policy, the development and implementation of curriculum and educational work.
- (四)條文修定：條文如有修正須經所務會議通過後公佈於生物醫學研究所網站<http://gibms.cgu.edu.tw/>，請學生以公告更新為準。
Revisions of regulations: Any revision of regulations shall be approved by the Institute Committee and published in the GIBMS website (<http://gibms.cgu.edu.tw/>). Please follow the most updated version.

二、生物醫學研究所博士班教育作業流程

GIBMS PHD EDUCATION STEP-BY-STEP FLOWCHART



三、入學考試及相關規定

ENTRANCE EXAM AND THE RELATED REGULATIONS

詳見該年度招生簡章。

See the annual brochures.

四、新生報到及註冊

NEW STUDENTS REPORTING TO SCHOOL AND REGISTRATION

註冊時間依每年教務處行事曆辦理，新生入學報到及註冊時間於寄發錄取通知時另行通知考生。

The registration of new students is based on the annual calendar set by the Office of Academic Affairs. The date for new students to report for school and to complete their registration will be stated in their acceptance letter.

五、指導教授

THESIS ADVISOR

指導教授需為本校醫學院基礎醫學科、生物醫學研究所、生物醫學系、醫學生物技術暨檢驗學系及中醫學系天然藥物碩士班具博士資格之助理教授（含）以上，或經各組組務會議同意，並由所務會議通過者。

The thesis advisor must be a faculty member (assistant professor and above) of the Basic Medical Divisions of the College of Medicine, the Graduate Institute for Biomedical Sciences, the Department of Medical Biotechnology and Laboratory Medicine, or the Division of Natural Products of the Department of Chinese Medicine. Alternatively, a thesis advisor not affiliated with the Divisions/Institutes/Departments listed above can be appointed if he/she is agreed upon and approved by the respective Divisional or Institutional Committee.

指導教授之職責：

Responsibilities of the thesis advisor:

- (一)、負責所指導研究生之全程學業輔導，含選課、閱讀學術論文、研究實驗與論文撰寫等。

To guide the student during his/her time in the PhD program in all academic matters, including course selection, paper assignment, experiment design and execution, and thesis writing.

(二)、負責所指導研究生在學期間之生活輔導。

To guide the student during his/her time in the PhD program regarding school life and counseling.

(三)、出席與所指導研究生有關之評審會議。

To attend the committee meetings to evaluate the research progress of the student.

(四)、推薦所指導研究生各類考試委員。

To recommend committee members and examiners for student's evaluation.

* 若因特殊因素擬變更指導教授，或因故無法繼續指導該研究生時，應經原指導教授、新指導教授授及所長同意後，得以變更。(提出「更換指導教授申請表」，送交所辦公室)

If a student needs to change his/her thesis advisor due to special circumstances, or if the thesis advisor is otherwise unable to continue his/her duty, a new advisor can be appointed. This requires the approval by the original advisor, the new advisor and the Institute Director. (The student needs to submit the "Change of Advisor" application form to the GIBMS office)

* 本所之兼任教師需於各組參與授課且經組務會議同意，得擔任指導教授。

Part-time teachers can serve as thesis advisors provided they participate in teaching in their division and are approved by the respective Division Committee.

* 生技組及天然藥物組之指導教授需由專任教師擔任

Thesis advisors from the Department of Medical Biotechnology and Laboratory Medicine, and the Division of Natural Products of the Department of Chinese Medicine need to be the full-time teachers.

六、課程與學分

COURSES AND CREDITS

詳見必選修課目表 (生物技術組課程完全以英文授課)

See "Graduate Program Ph.D Curriculum" (Division of Medical Biotechnology courses are taught entirely in English)

(一)必修科目

Required courses :

1. 書報討論：一～四年級必修八學分，修滿四學分且提前通過學位考試者得免修，仍需補足畢業學分。每學期一學分，由研究生每學期提出專題口頭報告。研究生應選讀數篇相關文獻著作，

整理後就問題之由來與重要性、方法及結果等，作有系統口頭報告，並適當回答問題。

Seminars: Eight credits are required for students in years 1 to 4. Once the student completes at least 4 credits (seminars) and passes the final degree defense, the rest of the seminar courses can be exempted; however, the total number of credits has to reach the number required for graduation.

2. 博士論文：共六學分於學位口試通過後給予。

PhD thesis: A total of six credits are granted after the final oral defense of the PhD degree examination.

3. 教學相關經驗（0學分）：每年8月15日及1月15日前提出申請，委請各組特定教師負責相關事宜，且每位學生至少需有一學期以上之相關經驗，且需先申請再擔任TA。

Teaching experience (0 credit):

The application form should be submitted by August 15 or January 15. Every PhD student needs to complete at least one semester of teaching experience as a teaching assistant (TA) before graduation.

4. 組定必修科目：

Required courses for each Division:

生化暨細胞分子生物學組－高等生化學（3學分）、細胞生物學（3學分）、分子生物學（4學分）

Biochemistry, Molecular & Cellular Biology:

Advanced Biochemistry (3 credits)

Cell Biology (3 credits)

Molecular Biology (4 credits).

微生物學組－微生物學（共8學分）－包含細菌學(2學分)、病毒學(2學分)、免疫學(2學分)、寄生蟲學(2學分)

Microbiology:

Microbiology (8 credits) – this includes Bacteriology (2 credits), Virology (2 credits), Immunology (2 credits), Parasitology (2 credits).

生理暨藥理學組－生理學(4學分)及藥理學(4學分)

Physiology and Pharmacology:

Physiology (4 credits)

Pharmacology (4 credits)

生物技術組－系統生物學之先進技術(3學分)、科學倫理與論文寫作 (2)

Biotechnology:

Advanced Technology in Systems Biology (3 credits)

Scientific Integrity and Scientific Writing(2 credits)

天然藥物學組-高等藥物生物技術特論(2學分)、高等天然藥物學特論(2學分)

Natural Products:

Special Topics in Advanced Pharmaceutical Biotechnology (2 credits)

Advanced Special Topics in Natural Medicine (2 credits)

(二)選修科目

Elective courses:

1. 選修範圍以本所每學期公佈之課程表為準。
An elective curriculum will be announced every semester.
2. 各科目學分,依經教育部核備之本所學年度必(選)修課目表辦理。
The credits of each course are based on the annual required (elective) curriculum provided by the Institute and approved by the Ministry of Education.
3. 加退選依本校規定辦理。
The addition or withdrawal of courses is governed by school regulations.

(三)學分計算及有關規定：其餘有關規定依長庚大學相關規定辦理。

Credit calculation and the relevant provisions are governed by the school regulations of Chang Gung University.

1. 一般生修業年限二至七年,在職生修業年限得酌予延長。
For full-time students, the degree should be completed between 2 to 7 years. This time period can be extended for part-time students.
2. 畢業學分數需達十八學分(不含論文)。
Eighteen credits of course study are required for graduation (excluding thesis credits).
3. 學科成績以七十分及格、一百分滿分。
For all academic performance evaluations, a score of 70 (out of 100) is the passing grade.
4. 逕行修讀博士學位者應修滿三十學分(含碩士所修之學分)(不含論文)。
For students who are directly admitted into the Ph.D. program (without obtaining a Masters degree beforehand), 24 credits are required for graduation (credits obtained from attending a Master's graduate program can be transferred, excluding thesis).

- * 生技組學生認可生醫所及生技所碩博之中文課程6學分(含高等生物技術學2學分)。

For the students who are directly admitted (without a prior Masters degree) into the PhD program of the Biotechnology Division, up to six credits from courses offered by GIBMS or the Graduate Institute of Biotechnology (taught in Chinese; including two credits of the Advanced Biotechnology course) may count towards graduation.

- * 天然藥物學組學生認可最多8個學分(含必修至少4學分)

For the students who are directly admitted (without a prior Masters degree) into the PhD program of the Natural Products Division, up to eight units may count towards graduation (including at least 4 credits from required courses).

5. 本所學生亦可選修臨床醫學研究所臨床醫學組博士班之課程，並列入於其畢業學分數內計算(生物技術組課程完全以英文授課，故認可選修其他組以英文為授課方式之科目為畢業學分)。

Courses offered by the Graduate Institute of Clinical Medical Sciences, Division of Clinical Medicine may also count towards graduation (as courses in the Biotechnology Division are taught entirely in English, courses from the other Divisions intended for credit substitution must also be taught in English).

Clinical Medicine

6. 學生經該課程負責人同意後，得申請科目學分抵免(或免修)並依本校「學生抵免學分辦法」第四條辦理。

With the permission from the course instructors, students may apply for course credit exemption (or fulfillment), according to Article #4 of the "Student credit exemption policy" governed by the school.

七、論文指導

THESIS SUPERVISION

- (一) 研究生需於第一學期結束前，選定指導教授。

Every student must select a thesis advisor before the end of the first semester after enrollment.

- (二) 論文指導委員會：本所對每一位博士班研究生均個別成立論文指導委員會。委員人數五至九人，須具助理教授或助理研究員以上資格，委員於指導論文期間得以更換。

Thesis Advisory Committee: The GIBMS requires each student to set up

a thesis advisory committee. The committee comprises five to nine members, all of which must hold a position equivalent to Assistant Professor/Researcher or above. Committee members can change during the thesis research.

(三) 論文大綱及進度報告：(進度報告委員至少三名)

Thesis proposal and progress reports: progress reports must be presented in a committee meeting and at least three of the committee members have to be present.

1. 研究生選定指導教授後，於各組規定時程內，擬定日期，研究生應於二週前將書面報告繳交給各委員，屆時以口頭報告方式進行論文大綱及相關進度報告（包括初步研究結果及構想與參與教學之相關經驗），其評估結果由委員會列冊簽字，由研究所存檔（學生應自存影本）。

After selecting the thesis advisor, students should set up committee meeting to provide regular progress reports at times as required by each Division. For each presentation, students are required to submit a written report to the committee two weeks before the oral presentation, in which the thesis proposal and/or progress report (including preliminary results as well as teaching experience) will be presented and discussed. An evaluation report must be signed by all committee members present during the meeting and submitted to the GIBMS office (students should also keep copies of the evaluation report for themselves).

2. 成績(未舉行視同零分)

Grading (no score if no presentation is held)

- * 七十分(含)以上為通過

Pass: a score of greater or equal to 70.

- * 七十分以下為不通過

Fail: a score of less than 70.

- * 生化暨細胞分子生物學組、生理暨藥理學組、生物技術組、天然藥物學組－第五學期開學前提論文大綱，之後每隔二學期於開學前提乙次進度報告。

Biochemistry and Molecular Cell Biology Division, Physiology and Pharmacology Division, Biotechnology Division, Natural Products Division:

The thesis proposal should be presented before the start of the fifth semester after enrollment, followed by regular progress reports every two semesters (before start of the school year).

- * 微生物學組—第三學期開學前提論文大綱，之後每隔二學期於開學前提進度報告乙次。

Microbiology Division:

The thesis proposal should be presented before the start of the third semester after enrollment, followed by regular progress reports every two semesters (before start of the school year).

八、博士學位候選人資格考試

PHD CANDIDACY QUALIFYING EXAMINATION (HEREAFTER REFERRED TO AS THE “QUALIFYING EXAM”)

資格考試以筆試及口試進行

The qualifying exam is conducted as a combination of written exams and an oral presentation.

(一)應考條件及時間：

Requirements and deadlines for the qualifying exam

1. 修完必修課程（書報討論除外），並經指導教授同意，始得參加博士學位候選人資格考試。

Students may sign up for the exam upon completing all required courses (with the exception of the seminar courses), and obtaining the consent of the thesis adviser.

2. 每年之3月1日及9月1日前向所上提出申請，筆試於4月30日及10月31日前結束。6月15日及12月15日前完成第一次口試；7月15日及1月15日之前需完成本次之資格考試。筆試與口試須於同一學期內提出。

Students may submit their application each year by March 1st or September 1st, after which written exams will be held on April 30th or October 31st, respectively. The oral presentation component of the exam should be held by June 15th or December 15th of the same year. The entire qualifying exam including the submission of the final grades has to be completed by July 15th or January 15th, respectively. Both written and oral exams should be taken within the same semester.

3. 第六學期結束前須通過資格考，若於期限內仍未通過資格考試者，應予退學。如有特殊原因，如中途休學，得視其休學長短延長其期限。

Students must complete and pass the qualifying exam before the end of the sixth semester after enrollment, and will be expelled from the school if failing to do so. The above deadlines may be

extended under special circumstances, such as a temporary leave of absence from school.

(二)考試項目與方式：

Exam subjects and policies

分為筆試與口試，由各組開會選派召集人蒐集試題並統籌口試相關事宜，訂定口試時間以及完成時日。其餘相關辦法則依各組規定辦理(如附錄)。

The qualifying exam consists of a written and an oral component. Each Division should assign a coordinator for the contents as well as schedules of both exams. Every section has its own rules and regulations regarding these exams that should be followed (see Appendix).

(三)逕修博士學位之研究生，未在限期內通過資格考試者，經所務會議審查並報請校方核准後，得再回碩士班繼續研習，並依本所規定之畢業要求，以取得碩士學位。

If a student who was directly admitted (without a prior Masters degree) into the PhD program fails to pass the qualifying exam within the required timeframe, the student can re-enter the Master's degree program upon approval by the GIBMS as well as the school. A Master's degree will subsequently be granted upon fulfilling all the graduation requirements for the Master's degree.

(四)其他相關事項：

Other related matters:

1. 筆試成績七十分（含）以上及格；若筆試成績不及格，不得申請口試。若口試成績未達標準，得於規定時間內提出重考口試申請。筆試及口試重考以乙次為限，不通過即退學。

Once a student fails the written part of the qualifying exam, he/she is not allowed to proceed to the oral examination. If the oral examination is considered unsatisfactory, the student can apply for re-examination within the time period set by the rules. A student can only retake the written and oral part of the qualifying exam once, and if the student fails again he/she will be expelled.

2. 通過考試，即列名博士學位候選人，得進行論文研究並須每年對其論文指導委員會作進度報告。

Once a student passes the qualifying exam, he/she is considered a "Ph.D. candidate". From here on the student will carry out his/her thesis research and present an annual progress report to his/her thesis research committee.

3. 依據本校九十八學年度第二次教務會議決議，「博士班學生於參加資格考後，若無不可抗拒的原因，該學期不得申請休學。」
According to the second Academic Affairs meeting in the academic year 2009, once a PhD student has applied and participated in the qualifying exam, he/she is not allowed to take a leave of absence, unless he/she has extraordinary incidents beyond his/her control.
4. 博士學位候選人資格考試研究計劃撰寫應注意事項
Notes for the preparation of the written research proposal for the PhD qualifying exam
 1. 由申請人在資格考口試委員們協助評估下，選定某一主題，提出研究計劃 (research proposal)。有意申請資格考試者應及早準備撰寫此一研究計畫書。
The applicant, under the guidance of the qualifying exam committee, shall select a research topic and prepare a research proposal.
 2. 研究計劃以英文撰寫，提交口試委員審核並進行口頭報告。(生物技術組需以英文進行口頭報告)
The research proposal should be written in English and submitted to the Committee. The student also has to present an oral report. (Students of the Biotechnology Division need to conduct the oral presentation in English)
 3. 研究計劃內容包括：
The research proposal should include:
 - 1.) 主題之背景資料及目前研究狀況
Background information and current research progress
 - 2.) 研究目標
The significant aims of the project
 - 3.) 研究方法與材料
A materials and methods section
 - 4.) 預期結果及可能遭遇之困難及解決之道
A discussion of the expected results, potential difficulties, and alternative approaches.
 - 5.) 文獻及附屬資料
References (required) and Appendices (optional)
 4. 研究計劃考試不通過，可修改後，再提一次，再不通過，則依學則規定辦理退學。
If the student receives a failing grade for his/her research

proposal component of the PhD qualifying exam, the student can re-apply to take this this exam. If he/she fails a second time once again, the student will be expelled from the school in accordance with school regulations.

九、畢業資格審核

EVALUATION OF GRADUATION REQUIREMENTS

1. 【研究所應屆畢業研究生成績審核表】，申請時間上學期開學日至 11 月 30 日止，下學期開學日至 4 月 30 日止。

Graduate students course credit checklist. Application deadlines: November 30 for the Fall semester, April 30 for the Spring semester.

* 此階段未申請者，則無法申請學位考試。

Students are not allowed to apply for their PhD degree exam without this checklist.

2. 網路申請一星期後，可於網路上查詢核准名單，或收到教務處歸還申請單影本，即表示此階段申請通過，可再進入同一系統申請第二階段學位考試作業。

One week after the submitting the online application (webpage see below), the approval status can be checked online. Alternatively, if you receive a photocopy of the application form from the Office of Academic Affairs, this also indicates that the application is successful. The PhD candidate can proceed to the second phase of the PhD degree exam application in the same online system.

申請網址：長庚大學首頁→校務資訊系統→登入個人身分→各項申請/查詢→研究生學位考試申請

Application URL: Chang Gung University Home Page → Campus Information System (<http://www.is.cgu.edu.tw/portal/DesktopDefault.aspx>) → Sign in→ (A) application / inquiry→[研究生學位考試申請](#)

3. 繳交資料為：

Documents required:

- 「應屆畢業研究生成績審核表」(學生提出)
Graduate students course credit checklist (provided by the student)
- 歷年成績單 (由教務處提供各所)
Transcript (provided by the Office of Academic Affairs)
- 選課清單 (由學生提出:請至校務資訊系統列印本學期選課結果)
Course List (Please print from the school information systems website)
- 博士資格考核通過日期及文件 (所辦提供)
PhD qualifying exam documents (provided by the GIBMS Office)

- 課程免修證明(有課程免修者需附，無則免，所辦提供)
Course exemption certificate (must be accompanied by a curriculum exemption, provided by the Office)
- 簽呈(與必選修科目表不同之特殊狀況者需附，無則免，所辦提供)
Petition (if you take certain courses not listed in the Institute required/elective course list, provided by the Office)
- 已發表論文抽印本，請註明期刊點數(學生提出)
Reprints of all published papers, the SCI impact factor should be indicated (provided by the student)
- 教學相關經驗報告書(學生提出)
Documentation of teaching experience (provided by the student)
- 通過本所訂定之英文畢業門檻 (學生提出)
Documentation that the students fulfills the English proficiency requirement (provided by the student)
- 論文壁報競賽活動 poster-A4 大小(學生提出)
Print out of the posters presented in Institute Poster competition (shrink to A4 size) (provided by the student)
- 入學第一學年結束前修習完成「臺灣學術倫理教育資源中心」網站 <https://ethics.nctu.edu.tw/> 課程並通過測驗後，可於網站申請修課證明。並於申請學位考試成績審核時，繳附本課程修課證明。
Complete the training and pass the test of the on-line course of Taiwan Research Ethics Education (<https://ethics.nctu.edu.tw/>) before the end of the first academic year. The proof of course completion is required for the application of PhD degree examination.

十、學位考試

PhD degree examination

相關規定依教務處頒佈「碩、博士學位考試實施辦法」為準

In accordance with the relevant provisions in "MSc, PhD Examination Implementation Measures" issued by the Office of Academic Affairs.

(一)學位考試進程序：(見博士班論文撰寫辦法)

The PhD degree examination procedure:

1. 需於學位考試二週前申請，繳交資料為：

The PhD degree examination application form needs to be submitted at least two weeks before the exam, including the required documents listed below:

* 『研究生論文指導教授同意書』(經論文指導教授簽章同意)
"Thesis advisor consent form" (signed by the thesis advisor)

- * 『研究生學位論文考試時間申請表』(學生上網申請列印)
"Graduate degree exam application form" (Download from the school website)
 - * 上網申請截止日：上學期12月31日，下學期5月31日。
Application Deadlines: December 31 for the Fall semester, May 31 for the Spring semester.
2. 學位考試前二週需完成論文初稿審查，並分送各考試委員一份。
Two weeks before the PhD degree exam, a first draft of thesis needs to be completed and delivered to each examiner.
 3. 學位口試以公開演講方式舉行。
The oral presentation of the PhD thesis is public.
 - * 公開口試之海報電子檔(請註明時間、地點、題目等)，以e-mail方式寄至所辦公室，以利公告週知。(學生提供)
The PhD candidates should provide all relevant information about the PhD degree exam (time, place, title, etc.) by email to GIBMS for public announcements

(二)應考資格

Requirements for PhD degree exam :

經指導教授同意，並具備下列各項條件始得進行口試

The following requirements must be met in order to apply for graduation:

- 一、 修畢博士課程所規定之學分數，並通過資格考。
The student must have completed all credits required for the PhD program and must have passed the qualifying examination.
- 二、 論文要求需於修業期間，達以下任一要求，方可申請畢業。
Prior to applying to graduate, the PhD thesis shall meet at least one of the following requirements during the academic years:
 - A. 第一作者之SCI論文點數至少五分或該領域前25%之論文一篇。
One publication as a first author in a journal with a SCI impact factor of at least 5, or ranked in the top 25% of journals in their category (ranked by the SCI impact factor).
 - B. 第一作者之SCI論文點數至少一分或該領域前50%之論文兩篇。

Two publications as a first author in a journal with an SCI impact factor of at least 1, or ranked in the top 50% of journals in their category (ranked by the SCI impact factor).

- C. 第一作者之SCI論文點數一分以上(含)或該領域前50%之論文一篇及兩篇SCI論文點數一分以上(含)之共同作者論文。

One publication as the first author in a journal with an SCI impact factor of at least 1, or ranked in the top 50% of journals in their category (ranked by their JCR impact factor), **and** two publications as a co-author in a journal with a SCI impact factor of at least 1.

- D. 第一作者之SCI論文點數一分以上(含)或該領域前50%之論文一篇及一個與本校指導教授共同提出之專利或技術轉移證明相關文件。

One publication as the first author in a journal with SCI impact factor of at least 1, or in the top 50% ranking in the related research category, and one patent or technology transfer applied with the thesis adviser.

附註：

1. 論文點數在證係數10.0 以下，限由一位第一作者學生提出畢業申請。
2. 論文點數在引證係數10.0 以上(含10.0)，可由兩位第一作者學生提出畢業申請。
3. 以上論文須以其指導教授為通訊作者或共同通訊作者。若有本所其他學生為共同第一作者時，需提出合著人放棄書。
4. 所提論文係以學生修業期間內該論文之最高點數或排序計算。
5. 論文發表之所屬單位需填註「長庚大學生物醫學研究所」。
6. 當學生之指導教授因故無法成為第一作者論文通訊作者或共同通訊作者時，請該指導教授提出書面說明，並交付組主任評估。

Notes:

1. The SCI impact factor to be used is the impact factor of this journal **during the school attendance periods** of the publication.
2. The advisor of the doctoral candidate with the lead-author publication should be the corresponding author of that particular publication. The only exception will be if the

original advisor left his or her position as a full-time or part-time member at Chang Gung University or Chang Gung Memorial Hospital. In the situation where a co-first author or a co-corresponding author exists, a letter of renunciation (i.e. waiving their right to use this paper to fulfil their respective PhD thesis requirements) signed by the co-author is required.

3. Upon approval by the respective Division of the GIBMS, any publication with an SCI impact factor of 10 or above can be used by more than one doctoral candidate to apply to graduate.
4. The doctoral dissertation must be published between the time of enrollment and graduation, and affiliated to "Graduate Institute of Biomedical Sciences, College of Medicine, Chang Gung University."

三、教學相關經驗報告書。

A certificate of his/her teaching experience must be provided.

四、博士班資格考通過證明書。

The certificate for passing the Ph.D. qualifying exam must be provided.

五、須參加本所舉辦之博、碩士班壁報競賽兩次，以第一作者為限。

The candidate must have participated at least twice in the poster competition hosted by the Graduate Institute of Biomedical Sciences as the first author of a poster.

六、生物醫學研究所博士班英語畢業資格如下

English Language Proficiency Requirements

(1) 全民英檢中高級初試及格。

Passing the high-intermediate level of the General English Proficiency Test (GEPT)

(2) 托福500分（含）以上。

Minimum of 500 on PBT TOEFL

(3) 電腦托福173分（含）以上，網路托福61分(含)以上。

Minimum of 173 on CBT TOEFL, 61 on IBT

(4) 外語能力測驗(FLPT-English) 平均成績65分（含）以上。

Average of 65 or above on FLPT-English

(5) IELTS 5級（含）以上。

Minimum of 5.0 on IELTS

(6) 多益測驗(TOEIC) 600分 (含) 以上。

Minimum of 600 on TOEIC

(7) 劍橋博思國際職場英語能力測驗(BULATS)45分(含)以上。

Minimum of 45 on BULATS

(8) 以上校外檢測未過，持相關成績單可參加校內英檢測驗，及格分數(不適用大學部現行之英文畢業門檻替代標準)視語文中心當年度訂定標準。

* 英語畢業資格要求需於學位論文口試第二階段申請前(上學期開學日後至12月31日止，下學期開學日後至5月31日止)，持通過證明繳交至所辦公室審核。

Valid proof of English language proficiency shall be submitted to the Office of Graduate Institute for review during the second stage of graduation application. (apply from the start of semester until December 31 for the fall semester, or until May 31 for the spring semester)

(三)考試委員

Examiners

1. 由指導教授於預定考試日期前二週向本所推薦，經所長同意後，報請核備。

Two weeks before the scheduled examination date, the thesis advisor shall recommend examiners to be approved by the Dean.

2. 每學期依教務處規定之期中及期末畢業時間舉行論文口試。

The appointed dates for oral defense of thesis shall be set pursuant to the schedule prescribed by the Office of Academic Affairs around the middle and by the end of each semester.

3. 口試委員五至九人，其中三分之一(含)以上須為校外委員，指導教授為當然委員。並由口試委員推薦指導教授之外一人為召集人。

The Oral Defense Committee shall consist of 5 to 9 members, of which 1/3 or more shall be external examiners. The faculty advisor shall serve as one of the committee members. The committee members shall recommend one member, other than the faculty advisor, to serve as the convener.

4. 博士學位考試委員須具助理教授(含)以上資格，或經本所所長同意認可者。

Unless otherwise approved by the Dean, doctoral examiners shall hold at least assistant professorship.

5. 博士學位考試委員會經核備後，原則上不得任意變更。

The members of the Doctoral Examination Committee once approved shall not, in principle, be changed.

(四)論文初稿撰寫：(見博士班論文撰寫辦法之附件-論文格式)

Preparation of Dissertation: (See the attached Format Guidelines for Doctoral Dissertations)

初稿之撰寫，必須依照規定格式，經指導教授審查認可後，於口試兩週前送至考試委員。初稿之內容與文字應盡量避免錯誤，如有錯誤需列表校正。

The first draft of the dissertation must follow the prescribed format. Upon review of your faculty advisor, the draft shall be submitted to the examiners at least two weeks prior to the oral defense. Students shall try to avoid any error in the first draft. In case of any error, a correction list shall be provided.

(五)論文口試

Oral Defense

1. 博士學位候選人在指定場地，考試委員同意之時間內，報告論文研究內容並回答考試委員所提問題。

Ph.D. candidates shall present their dissertation research and answer to examiners' questions at the designated location and times agreed by the examiners.

2. 口試成績以出席委員（至少需達五人（含）以上）所評之平均分數決定之，七十分為及格，如有三分之一（含）以上出席委員評定不及格，即為不及格。

At least five members should attend the oral defense to form a quorum. The grade of the oral defense will be the average of the grade decided by the attending examiners. A Ph.D. candidate passes the oral defense if given a minimum final grade of 70. A Ph.D. candidate fails the oral defense if 1/3 or more of the attending examiners give a grade of under 70.

3. 論文口試成績不及格者，如尚未滿修業年限，可重考乙次，重考不及格者，即令退學。

A Ph.D. candidate who has failed the oral defense may retake the oral defense for a second time during the remaining school years. The Ph.D. candidate shall be expelled from school should the Ph.D. candidate fail the second oral defense.

4. 論文口試通過後，提出博士論文完成稿，並取得指導教授同意函(即委員審定書)。

After the Ph.D. candidate passes the oral defense, the candidate shall submit the final doctoral dissertation and obtain the approval letter (i.e. examiners' written decision) from the faculty advisor.

5. 逕修博士學位之研究生，其論文考試未達博士學位標準而合於碩士學位標準者，經所務會議審查，並報請校方核准後得改授碩士學位。

A graduate student who is directly pursuing the doctoral degree and fails the doctoral dissertation examination but meets the master's thesis requirements may be conferred a master's degree upon review of the Institute Affairs Council and approval of the school.

十一、畢業及離校手續

GRADUATION AND DISENROLLMENT

(一)繳交博士論文

Delivery of Doctoral Dissertation

論文經考試委員建議修改部分，必須依照建議修改。定稿之論文依規定格式打印平裝，送交所辦、教務處及圖書館各一本。

The doctoral thesis must be revised according to the instructions given by the examiners. The final thesis shall be printed and bound in accordance with the prescribed format. One hard copy of the thesis shall be delivered to the Graduate Institute, Office of Academic Affairs and Library.

- (二)論文線上建檔：<http://thesis.lib.cgu.edu.tw/cdrfb3/>

File your dissertation online at: <http://thesis.lib.cgu.edu.tw/cdrfb3/>

- (三)離校手續：所有成績(含一般課程及口試)送達教務處後，可至校務資訊系統列印『離校手續單』，依離校手續單流程辦妥並經指導教授簽核後，方能取得畢業證書。

Disenrollment: Students may print the "Disenrollment Form" under the school information system after all the grades (including regular courses and oral examinations) have been submitted to the Office of Academic Affairs. Students will be able to receive their diploma only after the disenrollment procedures have been completed and the Disenrollment Form has been signed by the Faculty Advisor.

- * 所上要求事項：1.學生離所申請表，2.論文一本。

Items required by the Graduate Institute: 1. Disenrollment Application form; 2. One copy of dissertation.

(四)本所研究生於完成學業後頒發生物醫學「理學博士」學位。Graduate students of the GIBMS shall be conferred the degree of “Doctor of Philosophy” in Biomedical Sciences upon completion of the study.

十二、必選修科目表

長庚大學生物醫學研究所博士班必選修科目表 (一〇六學年度入學學生適用) 2017.04 修訂 Graduate Program Ph.D Curriculum (2017~2018)

一、本所博士班畢業學分數至少需達 18 學分(不含論文 6 學分)；生化暨細胞分生組組訂必修為 20 學分；微生物學組組訂必修為 18 學分；生理暨藥理學組組訂必修為 18 學分；生物技術組組訂必修為 13 學分；天然藥物組組訂必修為 14 學分。書報討論課程於修滿四學分且提前通過學位考試者可免修，但仍需補足畢業學分。除此之外本表單所列之課程及本所認可臨床醫學研究所臨床醫學組博士班課程，皆可列為選修學分。直攻博士班之學生，畢業時需達 30 學分(不含論文 6 學分)。

Students pursuing a PhD degree must fulfill a minimum 18 credits in course work and 6 credits for the PhD thesis.

Minimum compulsory credits for students in different divisions are: Biochemistry and Cell Molecular Biology, 16 credits; Microbiology, 14 credits; Physiology and Pharmacology, 14 credits; Biotechnology, 9 credits. Seminar is a required course for students in the third year or beyond (8 credits maximum). All courses listed above as well as other approved courses offered by the Clinical Medicine Graduate Program Division of Clinical Medicine can be taken to fulfill the requirements for elective courses. Students with direct admission to the PhD program should fulfill a graduation requirement of 30 credits (plus 6 credits for the dissertation), respectively.

二、博士“論文”學分(6)於學位口試通過後給予。

The 6 credits for the “PhD Dissertation” are given only after completion and passing of the thesis defense.

三、生物技術組課程完全以英文授課，故認可選修其他組以英文為授課方式之科目為博士班畢業學分。選讀博士班生物技術組，則認可生醫所及生技系碩士班之碩博課程 6-12 學分(含必修高等生物技術學 2 學分)

All courses in the Biotechnology division are offered in English. When choosing elective courses offered by other divisions, only those taught in English can fulfill PhD graduation requirement. For students with direct admission to the PhD program, up to 12 credits of courses (including 2 credits of the Advanced Biotechnology required course) can count towards graduation.

四、本所外籍博士生畢業要求為 18 學分(不含論文 6 學分)，必修科目為書報討論課程 8 學分(一~四年上下學期，1 學分/學期)，其餘可在指導教授協助規劃下選擇本表單上的相關科目。

For international students in the Ph.D. program, the 18-credits requirement can be fulfilled by any courses in the above list, plus the seminar courses (8 credits total) and 6 credits of the “PhD Thesis”. Course selection should be consulted with and approved by the research adviser.

五、A. 生物科技產業博士學位學程自 105 學年度加入本所為其中一組，畢業學分數為 30 學分，含必修 12 學分(包括書報討論 4 學分)，選修 12 學分，及博士論文 6 學分。若為選讀博士班之學生，畢業學分數為 42 學分，含必修 12 學分，選修 24 學分，及博士論文 6 學分。碩士生選讀本博士學程時，以碩士獲得之學分抵免本博士學程之選修學分，以 16 學分為限，且不得抵免書報討論及產業研發實務。

B. 可選修本校管理學院 MBA 課程(英文授課)作為本學程選修學分。

C. 學生修習之科目需經校內指導老師同意及簽名。

D. 書報討論、產業研發實務、生技產業新知論壇、生技製藥研發皆為碩博合開。

領域/組別 Divisions	必/選修 Required (R) or Elective (E)	科目名稱 Course Title	學分 Credit	開課 年級 Year	上學 期 Fall	下學 期 Spring	備註 Note
共同必修科目 General Required Courses	R	書報討論 Seminar (*)	8	1~4	8		一~四年級混班上課，且必修八學分(1 學分/學期)，修滿四學分且提前通過學位考試者得免修，仍需補足畢業學分。Required course: students should fulfill minimum of 4 credits, and maximum of 8 credits. Students in the Division of Biotechnology should consult for more details.
	R	醫學新知導論 Current Topics in Biomedical Sciences	2	1	2		左列科目為博士班核心課程，為必修三選一。99 學年度起適用。Core courses for the Ph.D. program. Completion of at least one course is required (starting in 2010).
	R	科學研究方法 Scientific Methods	2	1		2	
	R	科學倫理與論文寫作 (*) Scientific Integrity and Scientific Writing (*)	2	2		2	

生化暨細胞 分生學組 Division of Biochemistry and Cellular Molecular Biology	R	高等生化學 Advanced Biochemistry	3	1	3	左列必修科目，於碩士班期間曾經修習並通過，可於錄取後至開學前一週申請免修，但需附成績單及經指導教授、授課教師及所長同意。且需補足畢業學分數。 Required courses for PhD program. Students may be exempted from required course if the student has acquired these credits from previous program. The deadline for exemption applications is a week before the start of the semester. Application will have to be approved by the advisor, lecturer, and chairman, provided with the transcript. Besides, student still needs to fulfill the graduation credits.	
	R	細胞生物學 Cell Biology	3	1	3		
	R	分子生物學 Molecular Biology	4	1			4
微生物學組 Division of Microbiology	R	微生物學-細菌學 Microbiology-Bacteriology	2	1	2		
	R	微生物學-寄生蟲學 Microbiology-Parasitology	2	1	2		
	R	微生物學-病毒學 Microbiology-Virology	2	1			2
	R	免疫學 Immunology	2	1			2
生理暨藥理 學組 Division of Physiology and Pharmacology	R	生理學 Physiology	4	1		4	Offered jointly with the School of Medicine and School of Traditional Chinese Medicine 若五年內曾通過同樣課程、同學分數者，經指導教授、授課教師及所長同意後，得申請免修，仍需補足畢業學分數。 Course may be exempted for a student that has successfully completed an identical or equivalent course(es) within 5 years. Application will have to be approved by the advisor, lecturer, and chairman. Besides, student still needs to fulfill the graduation credits.
	R	藥理學 Pharmacology	4	1	4	4	
	R	人體生理學(*) Human Physiology	4	1	4		Offered for international students in the Ph.D.
	R	醫學藥理學(*) Medicinal Pharmacology	4	1		4	
生物技術組 Division of Biotechnology	R	系統生物學之先進技術 (*) Advanced Technologies in Systems Biology (*)	3	1	3		
	R	科學倫理與論文寫作 (*) Scientific Integrity and Scientific Writing (*)	2	1		2	
天然藥物組 Division of Natural Product	R	高等藥物生物技術特論 Special Topics in Pharmaceutical Biotechnology	2	1	2		
	R	高等天然藥物學特論 Special Topics in Natural Products	2	1		2	
生物科技產 業博士學分 學程	R	書報討論 Seminar (*)	4	1~2	1	1	
	R	產業研發實務(1)(2)(3)(4)	4	1~2	1	1	
	R	生技產業新知論壇 BioBusiness Awakening Forum	2	1	1	1	
	R	生技製藥研發 Biopharmaceutical Development	2	1	2		
選修課程 Elective courses	E	基因調控特論 Special Topics in Gene Regulation	2	1	2		
	E	專題討論-生化暨細胞分生(一) (*) Special Topics in Biochemistry, Cell & Molecular Biology (1) (*)	2	1	2		

E	分子流行病學 Molecular Epidemiology	2	1	2		
E	體學時代的生物技術與生物標誌 Biotechnology and Biomarkers in the 'Omic Era'	1	1	1		暑期開課,上限 60 人 summer course, class limit: up to 60 students
E	質譜定量蛋白質體學 (實作) Mass Spectrometry-based Quantitative Proteomics (Hands-on)	1	1	1		暑期開課,上限 30 人 summer course, class limit: up to 30 students
E	轉錄體學與數據分析 Transcriptomics (Hands-on)	1	1	1		暑期開課,上限 20 人 summer course, class limit: up to 20 students
E	近代體學於轉譯醫學之應用 'Omics' tools in Translational Medicine	1	1	1		暑期開課,上限 60 人 summer course
E	蛋白質體學與質譜分析 (實作) Proteomics and Mass Spectrometry (Hands-on)	1	1	1		暑期開課,上限 30 人 summer course, class limit: up to 30 students per class
E	生技產業校外實習 Practical Training in Biotechnology Industry	1	1	1		實習課程·暑期開課 practice course (summer only)
E	抗體備製與純化 (實作) Antibodies: Production and Purification (Hands-on)	1	1		1	
E	膜轉運與胞吐特論 Special Topics in Membrane Trafficking and Exocytosis	2	1		2	
E	專題討論-生化暨細胞分生 (二) (*) Special Topics in Biochemistry, Cell & Molecular Biology (2) (*)	2	1		2	
E	論文與計畫寫作 Writing theses and research proposals	2	1	2		
E	生物資訊分析課程 Bioinformatics	2	1	2		
E	高等免疫學(*) Advanced Immunology (*)	3	1	3		具有免疫基礎之研究生 for students with background knowledge in Immunology.
E	熱帶醫學 Tropical Medicine	2	1	2		自 102 學年度起,隔年開設 offered bi-annually, starting in 2006
E	專題討論-微生物學 (一) (*) Special Topics in Microbiology (1) (*)	2	1	2		
E	組織移植(二)--基礎與臨床觀點(*) Tissue Transplantation (2): Basic and Clinical Aspects (*)	3	1	3		
E	微生物與人類歷史 Microbes and Human History	2	1	2		自 105 學年度開始,隔年開設。 offered bi-annually, starting in 2016 上限 30 人 class limit: up to 30 students
E	分子微生物學 Molecular Microbiology	4	1		4	
E	細菌致病分子學 Bacterial Pathogenesis	2	1		2	自 91 年始,隔年開設 offered bi-annually, starting in 2002
E	病毒-寄主互動特論 Special Topics in Virus-Host Interactions	2	1		2	自 91 學年度起,隔年開設;需修過微生物學。 offered bi-annually, starting in 2002; prerequisite: Microbiology
E	EB 病毒特論 Special Topics in Epstein-Barr Virus and associated diseases	2	1		2	自 92 學年度起,隔年開設 offered bi-annually, starting in 2003

E	肝炎病毒特論 Special Topics in Hepatitis Viruses	2	1		2	
E	高通量定序分析 High-Throughput Sequencing Analysis	2	1		2	
E	組織移植(一)--基礎與臨床觀點(*) Tissue Transplantation (1): Basic and Clinical Aspects (*)	3	1		3	
E	專題討論-微生物學(二)(*) Special Topics in Microbiology (2) (*)	2	1		2	
E	訊號傳遞 Signal Transduction	2	1	2		
E	呼吸系統特論 Special Topics in Respiratory System	2	1	2		
E	循環系統特論 Special Topics in Circulation	3	1	3		
E	神經科學 Neuroscience	2	1	2		
E	神經化學 Neurochemistry	2	1	2		
E	高級生物統計學 Advanced Biostatistics	2	1	2		
E	內分泌學 Endocrinology	2	1	2		
E	老化特論 Special Topics in Aging.	2	1		2	
E	分子神經生物學 Molecular Neurobiology	2	1		2	
E	藥理學特論 Special Topics in Pharmacology	2	1		2	自 100 學年度始，隔年開設 offered bi-annually, starting in 2011
E	內分泌學特論 Special Topics in Endocrinology	2	1		2	
E	星型膠細胞生理病理學 Astrocytes in the Pathophysiology of the Nervous System	2	1		2	
E	神經生物學 Neurobiology	2	1		2	(與醫學系同修) offered jointly with School of Medicine
E	分子影像 (*) Molecular Imaging (*)	3	1	3		兩年開一次：96 學年度起開課 offered bi-annually, starting in 2007
E	疫苗研發 (*) Vaccine Development (*)	3	1	3		兩年開一次：97 學年度起開課 offered bi-annually, starting in 2008
E	新興病毒特論 (*) Special Topics in Emerging Viruses (*)	2	1	2		
E	RNA 病毒特論 (*) Special Topics in RNA Viruses (*)	2	1	2		
E	自由基生物醫學(*) Free Radical Biology and Medicine	2	1	2		104 年新增
E	轉譯癌症醫學 (*) Translational Cancer Medicine (*)	2	1		2	碩博合開，且須修過「細胞生物學」或「分子生物學」
E	高等細菌學(*) Advanced Bacteriology (*)	2	1		2	
E	高等級生物安全實驗室設計及操作(*) Specific topics of Biosecurity Practice for High Security Level Labs(*)	2	1		2	
E	學術英語寫作實務訓練(*) Practical training in English as an academic Language	2	3		2	博士班三年級以上選修
E	高等劑型設計特論 Special Topics in Dosage form Design	2	1	2		

	E	天然物與血栓平衡 Natural Products and The Balance of Thrombosis	2	1	2			
	E	藥效學特論 Special Topics in Pharmacodynamics	2	1		2		
	E	製藥生技學特論 Special Topics in Industrial Pharmaceutical Biotechnology	2	1		2		
	E	二維核磁共振光譜學 Two-dimensional Nuclear Magnetic Resonance Spectrometry	2	1		2		
	E	發炎藥理學特論 Special Topics in Inflammopharmacology	2	1	2			
	E	藥廠與專利申請實務特論 Special Topics in The Pharmaceutical Factory and Patent Application	2	2	2			
	E	中藥資訊研究 Information Studies of Traditional Chinese Medicine	2	2	2			
	E	高等藥物化學特論 Special Topics in Advanced Medicinal Chemistry	2	2	2			
	E	高等基因藥理學特論 Special Topics in Pharmacogenomics	2	2	2			
	E	表觀遺傳學特論 Special Topics in Epigenetics	2	2		2		
	E	中草藥產業技術開發 Industrial Development of Chinese Medicine and Herbal Drugs	2	2		2		
	E	轉譯醫學暨體學特論 Special Topics in Translational Medicine and Omics	2	2		2		
	E	生化暨分子生物學(*) Biochemistry and Molecular Biology (*)	2	1	2		與分醫碩士學位學 程合開 Graduate Program in Molecular Medicine	
	E	生物資訊與生物統計學(*) Bioinformatics & BioStatistics (*)	2	1	2			
	E	分子醫學特論(*) Topics in Molecular Medicine (*)	2	2		2		
	E	細胞生理與訊號傳遞(*) Cellular Physiology & Signal Transduction (*)	2	1	2			
	E	基因發育/線蟲模型(*) Molecular Genetics / Model Organisms I (*)	2	1	2			
	E	細胞生物學(*) Advanced Cell Biology (*)	2	1		2		
	E	癌症生物學特論(*) Advanced Cancer Biology (*)	2	1		2		
	E	高等微生物學(*) Advances in Microbiology (*)	2	1		2		
	E	高等免疫新知 Advances in Immunology(*)	2	1		2		
	E	細胞生長與細胞凋亡(*) Cell growth and apoptosis (*)	2	1		2		
其他	E	生技產業實例 Case Study of Biotech Industry	1	1	1		跨校開設遠距教學,暑期開課 Distance learning course (summer only)	此四門課程 為計畫支援

Other	E	重要疾病的轉譯醫學研究 Translational Medicine Research of Important Diseases	2	1	2	跨校開設遠距教學,暑期開課,此兩門課程自 99 學年度開始,兩年輪流開設。Distance learning course (summer only), offered bi-annually, starting in 2010.	課程,因相關計畫已結束,暫停開課。
	E	心血管疾病及代謝疾病的轉譯醫學研究 Translational Research of Cardiovascular and Metabolic Diseases	2	1	2		
	E	智財、技轉與倫理 Intellectual Property,Technology Transfer and Ethic	2	1	2	跨校開設遠距教學,暑期開課 Distance learning course (summer only)	

註： 1、打(*)者為英文授課。

Notes: An asterisk (*) indicates a course taught in English.

2、學生所選欲修習之科目，需經過指導老師之同意及簽名。

Course selection and registration should be approved and signed by the thesis mentor.

附錄-資格考試相關規定

APPENDIX- QUALIFYING EXAM REGULATIONS:

*由課程委員會召集人統籌並依各組規定辦理。

The written part of the qualifying exam is coordinated by the curriculum committee chairperson according to the regulations of each Division.

一、生醫所資格考流程圖：

GIBMS qualifying exam flowchart:

3/1、9/1 前向所辦公室提出資格考試申請書（需繳交資料：成績單、指導教師同意書）。

The application for the written part of the PhD qualifying exam should be submitted to GIBMS office before either March 1 or September 1. (Documents required: (1) transcript and (2) permission to take the qualifying exam signed by the applicant's advisor)



所辦公室於 4/1、10/1 前以 E-mail 方式告知筆試時間，地點及進行方式。（筆試評分作業於月底前完成）4/30、10/31 前完成筆試。

The GIBMS office will provide the following information to the applicant by e-mail before either April 1 or October 1, respectively: the time, the place, and the format of the qualifying exam.



所辦公室以 E-mail 方式公佈筆試合格者名單後，筆試合格者須向所辦公室及本組資格考總召集人報到。一週後，總召集人即告知筆試合格者該次口試委員召集人名單。筆試合格者自行與口試委員召集人取得聯繫，並詢問口試進行方式、時間及口試需準備之相關資料。

The GIBMS office will notify the student that passes the written part of the PhD qualifying exam by e-mail. The student should then (1) report to the GIBMS office and (2) contact the PhD qualifying exam committee chairperson. One week later, the PhD qualifying exam committee chairperson will announce to the student the oral qualifying exam committee members. The student should now contact each committee member to discuss about an appropriate time, place, format, and the other related requirements for the oral part of the qualifying exam.



筆試合格者於口試一週前，繳交研究計畫書於口試委員召集人（準備份數需視口試委員召集人聘請之口試委員人數而定，另需繳交一份至所辦公室）。6/15、12/15 前完成口

One week before the oral exam, the student should hand in one copy of the PhD thesis proposal to the PhD qualifying exam committee chairperson, each oral exam committee member, and the GIBMS office. The oral exam should be taken before June 15 or December 15, respectively.



口試完成後，所辦公室即於近期內公佈資格考通過名單。(資格考所有程序須於規定時間內完成)7/15、1/15 前完成本次之資格考。

After the oral examination is completed, the GIBMS office will announce who passes the oral exam. The entire qualifying exam processes should be completed by either July 15 or December 15, respectively.

二、生醫所資格考口試委員規定

Instructions for the GIBMS PhD qualifying exam committees

1. 由口試委員會召集人推薦四人 (共五人)，指導教授不得列席。

The PhD qualifying oral exam committee members (four) are recommended by the oral exam committee chairperson. The student's thesis advisor is excluded from the oral part of the PhD qualifying exam committee.

2. 口試委員需具助理教授(含)以上資格。

All PhD qualifying exam committee members should have at least the academic rank of an assistant professor.

附錄一 資格考試各組規定說明

APPENDIX--REGULATIONS FOR QUALIFYING EXAM FOR EACH DIVISION

生化暨細胞分子生物學組

Division of Biochemistry, Molecular and Cellular Biology

考試項目與方式:

Qualifying exam regulations:

1. 筆試範圍：必修科目(高等生化學、分子生物學、細胞生物學)三選二，平均70分（含）以上，即為通過。

Written part of the exam: the student should choose **TWO** out of three required subjects (advanced biochemistry, molecular biology, and cell biology) as his/her exam subjects. The passing score for the written exam is 70 points (calculated as the average of the two subjects).

* 若一次筆試考試不通過，可申請保留其中一科成績，並在申請單上由指導老師簽名確認。

If the student fails the written exam, he/she can apply to retain the score for one of the subjects.

2. 口試進行方式：

Instructions for oral exam:

- a. 研究生應於預定考試日期前一個月，繳交學位論文研究主題大綱（三-五頁），並於筆試合格後撰寫研究計畫書。本組總召集人得就申請人所提供欲撰寫之研究計畫書方向與主題，聘請助理教授（含）以上老師擔任該申請人研究計畫口試委員會之召集人，並推薦其他口試委員人選四人（口試委員決定後請交至本所辦公室）。申請人撰寫研究計畫書得尋求口試委員召集人之指導與協助。申請人須於口試一週前繳交研究計畫書。

The student should provide the PhD thesis outline (3~5 pages) a month prior to the qualifying exam, and the full written research proposal after passing the written part of the qualifying exam. The oral qualifying exam committee chairperson of this Division will choose four additional committee members (with an academic rank of at least assistant professor), based on the provided research outline. Once the committee members are decided, the names of the committee members should be submitted to the GIBMS office. The examinee should seek guidance from the committee members and

should submit the complete written research proposal to each committee member a week before the oral exam.

- b. 研究計畫書之撰寫格式請參考附件。

Please refer to the attachment for the writing format of the research proposal

3. 筆試及口試均需及格[七十分(含)以上]；若筆試成績不及格，不得申請口試。學生可於二年級上學期開始至三年級下學期結束前，提出申請。若筆試成績未達標準，可於限定時間內提出重考申請，重考以乙次為限；若口試成績未達標準，得於規定時間內提出重考口試申請，重考以乙次為限，不通過即退學。第六學期結束前仍未能通過資格考試者，應予退學。

The passing scores for both the written and oral part of the qualifying exam should be at least 70 points. A student who fails the written exam cannot proceed to take the oral exam. Every student is entitled to apply for the qualifying exam during his/her 3rd (first semester for the 2nd year) to 6th semester (the second semester of the 3rd year). If the student fails the first written/oral exam, he/she can reapply once for a 2nd written/oral qualifying exam within the required time. By the end of the 6th semester, the student should complete all parts of the qualifying exam (both written and oral exams). A student who does not complete this requirement will be expelled from the graduate program.

微生物學組

Division of Microbiology

考試項目與方式 Qualifying exam regulations:

1. 筆試科目：微生物學(細菌、病毒、寄生蟲、免疫，四大領域擇二考試)，平均70分(含)以上，即為通過。

Written exam subjects: microbiology (bacteriology, virology, parasitology, immunology; the student chooses two of the four subjects for the exam), an average of 70 points (or more), is required to pass.

- * 若一次筆試考試不通過，可申請保留其中一科成績。

If the student fails the written exam, he/she can apply to retain the score of one of the subjects.

2. 口試進行方式 Oral examination:

筆試及格者，得申請口試。總召集人指定口試委員會召集人，由口試委員會召集人統籌，並依本組規定辦理。研究生應於申請口試時著手撰寫研究計畫書，並得以尋求口試委員召集人之指導與協助。申請人須於口試一週前繳交研究計劃書至口試委員。

For those students who pass the written exam may apply to take the oral exam. The Chairperson of the qualifying exam committee chooses a designated coordinator to organize the oral exam committee for each student under the rules regulations set by the Division. The student should proceed to apply for the oral part of the qualifying exam and prepare his/her research proposal. He/she is allowed to seek guidance and assistance from the oral exam committee coordinator. Students are required to submit a research proposal to the Committee Members one week before the exam.

3. 筆試及口試均需及格[七十分(含)以上]；若筆試成績不及格，不得申請口試。若筆試成績未達標準，可於所上規定時間內提出重考申請，重考以乙次為限；若口試成績未達標準，得於規定時間內提出重考口試申請，重考以乙次為限，不通過即退學。第六學期結束前仍未能通過資格考試者，應予退學。

Students must pass both, the written and oral part of the qualifying exam [≥ 70 points]. If a student fails the written test, he cannot proceed to take the oral exam. There is only one chance to re-take the written exam. If the student fails the oral

part of the qualifying exam, he/she can re-take the exam once. If the student fails again, he/she will be expelled from the graduate program. The qualifying exam should be completed before the end of the 6th semester.

考試項目與方式 Qualifying exam regulations:

1. 筆試範圍 Written exam: :
 - A 主選科目－生理學或藥理學。
Primary subjects: physiology or pharmacology
 - B 神經科學、循環系統、內分泌系統、細胞生物等四大領域四選一。委員負責出題，並由委員會決定考試內容。
Secondary subjects: choose any one of the following four subjects: neuroscience, circulatory system, endocrine system, and cell biology.

*若一次筆試考試不通過，可申請保留其中一科成績。
If the student does not pass the written exam, he/she can apply to retain the score of one of the subjects.
2. 口試進行方式
Oral examination:
 - (a) 筆試及格者[二科各70分(含)以上]得以申請口試。
Students who pass the written exam (score ≥ 70) may apply to take the oral exam.
 - (b) 由博士班資格考召集人組成之口試委員會負責，就學生所提報之研究計畫書內容發問，但指導教授不得列席。
The oral qualifying exam committee is in charge of the oral part of the qualifying exam. The thesis advisor of the student should be excluded.
 - (c) 申請人撰寫研究計畫書得尋求口試委員召集人之指導與協助，並應於預定口試前一週將研究計畫書，呈交口試委員。
The applicant is allowed to seek guidance and assistance from the oral qualifying exam committee coordinator. Applicants are required to submit a research proposal to the Committee Members one week before the exam.
3. 筆試成績各科需70(含)分以上，若不及格者可單獨重考該科，四大領域部分則可變更選考科目。
A passing grade (≥ 70 points) for each of the written exam subject is required. If a student fails, he/she can re-take the

individual subject. It is permitted to choose different subjects when re-taking the exam.

4. 筆試及口試均需及格[七十分(含)以上];若筆試成績不及格,不得申請口試。若口試成績未達標準,得於所上規定時間內提出重考口試申請。筆試及口試重考各以乙次為限,不通過即退學。第六學期結束前仍未能通過資格考試者,應予退學。
Students must pass both, the written and oral a part of the qualifying exam [≥ 70 points]. If a student fails the written test, he/she cannot proceed to take the oral exam. There is only one chance to re-take the written exam. If the student fails the oral exam, he/she is allowed to re-take the oral exam once. If the student fails again, the student shall be expelled from the graduate program. The qualifying exam should be completed before the end of the 6th semester.

生物技術組

Division of Biotechnology

考試項目與方式：分為筆試與口試，由本組學生輔導委員會統籌召集辦理。Qualifying exam regulations: Written and oral exams are organized by the student counseling committee of the Division.

1. 筆試範圍：分必考及選考各一科，每科均需70分(含)以上，即為通過。必考科目為「系統生物學之先進技術」。選考科目為「轉譯癌症醫學」、「氧化還原生物學特論」、「分子影像」、「高等細菌學」、「新興病毒特論」等課程五選一。由本組學生輔導委員會統籌召集辦理。

The written part of the qualifying exam includes one required and one elective subject. For each of the subjects 70 points (or more) are required to pass the exam. Required subject: advanced technology of systems biology. Any one of the following elective subjects is accepted. translational cancer medicine, special topics in redox biology, molecular imaging, advanced bacteriology, special topics in emerging viruses.

2. 口試進行方式 Oral exam:
 - a. 口試委員召集人參酌申請人之指導教授意見，決定欲撰寫之研究計畫書方向與主題，聘請助理教授(含)以上老師擔任口試委員共5名(指導教授不得列席，口試委員決定後請交至本所辦公室)。申請人撰寫研究計畫書得尋求口試委員召集人之指導與協助，並須於口試一週前繳交研究計畫書。

The coordinator of the oral qualifying exam committee chooses a total of five committee members (at the academic rank of assistant professor or above) based on the suggestions of the applicant's advisor, and the content of the research proposal. The applicant's advisor should be excluded from the committee. Applicants have to submit a research proposal one week before the oral exam. The applicant can seek guidance and assistance from the oral committee coordinator.

- b. 研究計畫書之撰寫格式請參考附件(需英文撰寫)。
For the format of the written research proposal, please refer to the attachment (it is required to be written in English).

3. 筆試及口試均需及格[七十分(含)以上];若筆試成績不及格，不得申請口試。若筆試成績未達標準，可於所上規限定時間內提出重考申請，重考以乙次為限；若口試成績未達標準，得於規定時間內提出重考口試申請，口試重考以乙次為限，

不通過即退學。第六學期結束前仍未能通過資格考試者，應予退學。

Students must pass both, the written and oral parts of the qualifying exam [≥ 70 points]. If a student fails the written exam, he/she cannot proceed to take the oral exam. There is only one chance to re-take the written exam. If the student fails the oral exam, he/she is allowed to re-take the oral exam once. If the student fails again, he/she shall be expelled from the graduate program. The qualifying exam should be completed before the end of the 6th semester.

天然藥物學組

Division of Natural Products

考試項目與方式 Qualifying exam regulations:

1. 筆試範圍：必修科目(高等藥物生物技術特論、高等天然藥物學特論)二選一，需70分(含)以上，即為通過。委員負責出題，並由委員會決定考試內容。

Written exam: any one of the two required subjects (advanced pharmaceutical biotechnology, advanced natural medicine). Seventy points (or more) are needed to pass.

2. 口試進行方式 Oral exam:

- a) 口試委員召集人參酌申請人之指導教授意見，決定欲撰寫之研究計畫書方向與主題，聘請助理教授(含)以上老師擔任口試委員共5名(指導教授不得列席，口試委員決定後請交至本所辦公室)。申請人撰寫研究計畫書得尋求口試委員召集人之指導與協助。申請人須於口試一週前繳交研究計畫書。

The coordinator of the oral exam committee chooses a total of five committee members (holding the academic rank of assistant professor or above) based on the suggestion of the applicant's advisor, and the content of the research proposal. The applicant's advisor should be excluded from the committee. Applicants have to submit a research proposal one week before the oral exam. The applicant can seek guidance and assistance from the oral committee coordinator.

- b) 研究計畫書之撰寫格式請參考附件(需英文撰寫)。

For the format of the written research proposal, please refer to the attachment (it is required to be written in English).

3. 筆試及口試均需及格[七十分(含)以上];若筆試成績不及格，不得申請口試。若筆試成績未達標準，可於所上規限定時間內提出重考申請，重考以乙次為限;若口試成績未達標準，得於規定時間內提出重考口試申請，口試重考以乙次為限，不通過即退學。第六學期結束前仍未能通過資格考試者，應予退學。

Students must pass both, the written and oral parts of the qualifying exam [≥ 70 points]. If a student fails the written exam, he/she cannot proceed to take the oral exam. There is only one chance to re-take the written exam. If the student fails the oral exam, he/she is allowed to re-take the oral exam once. If the student fails again, he/she shall be expelled from the

graduate program. The qualifying exam should be completed before the end of the 6th semester.

附錄一 博士班資格考口試書面報告規範

Appendix - Guideline of the PhD oral qualifying examination

長庚大學生物醫學研究所，資格考口試書面報告要求及格式規定如下：

Format requirements of the written research proposal for the PhD oral qualifying exam set by the Graduate Institute of Biomedical Sciences, Chang Gung University

1. 主體以 1.5 倍行高、12 點字體為主，英文字型為 Times New Roman，中文為標楷體。Line spacing: 1.5 lines, Font size: 12 pt, Font: Times New Roman.
2. 資格考口試之書面報告以英文方式書寫。The qualifying examination proposal should be written in English.
3. 各項內容及限定頁數如下表：Research Proposal Guidelines

Components	Contents	page
Cover Page	Include the title, names of the student and the advisor, time and location of the oral examination, and student contact information	1
Abstract	Written in both Chinese and English, one page each; include brief summary of background, essential questions, methods to be used, and potential contribution.	1+1
Specific Aims	State the specific purpose of the research and the hypotheses to be tested	1
Background and Significance	Review briefly the background to the proposal. State concisely the importance of the research by relating the specific aims to the gaps of knowledge in the field.	3~5
Study Design and Rationale	Provide a description of the research design and the procedures to be used to accomplish the specific aims and test specific hypotheses. Potential experimental difficulties and limitations of the approach should be discussed together with alternative approaches that could achieve the desired aims.	5~8
Methods	Describe how the experiments will be conducted. Avoid directly copy/paste from other papers or proposals.	≤3
Anticipated Results	Include potential problems and alternative approach.	≤2
Figures and Tables	Present critical finding from other investigators (include the references underneath) and/or preliminary data from the applicant.	≤8
References	Updated references in a consistent format (≤50 references)	

附錄一 研究生表格清單

Appendix – List of graduate student application form

(於生醫所網站 www.gibms.com.tw “碩博士班相關表單” 依編號下載)

(Please refer to Biomedical Institute website www.gibms.com.tw for downloading the application form)

一、學生相關事務附表 (List of Student related form)

指導教授確認書.....	(附表一)
ADVISOR AGREEMENT	
更換指導教授申請表.....	(附表二)
Change of Advisor Application Form	
課程免修核定表.....	(附表三)
Course Exemption Confirmation Form	
書報討論評分表—學生評分表.....	(附表四)
Seminar score sheet--for student	
書報討論評分表—教師評分表.....	(附表五)
Seminar score sheet--for teacher	
教學相關經驗申請表.....	(附表六)
Teaching Experience Application Form	
教學相關經驗報告書.....	(附表七)
Teaching Experience Report	
博士班獎學金申請書.....	(附表八)
Phd student Scholarship Application Form	
專題演講認證表格.....	(附表九)
Approval Form for Special Seminar Attendance	

二、論文、資格考相關事務附表(List of Thesis and Qualifying related form)

博、碩士班研究生論文指導教授同意書.....	(附表 1)
Advisor's Consent Letter for Master's/Doctoral Student	
博、碩士班研究生提出(論文大綱)(進度報告)(資格考口試)申請表.....	(附表 2)
Master's/Doctoral Proposal/Progress Report/Qualifying Oral Exam Application Form	
博、碩士研究生(論文大綱)(進度報告)(資格考口試)評分表.....	(附表 3)
Master's/ Doctoral Proposal/Progress Report/ Qualifying Exam Score Sheet	
博、碩士班研究生(論文大綱)(進度報告)(資格考口試)口試總評表.....	(附表 4)
Master's/Doctoral Proposal/Progress Report/ Qualifying Exam Assessment	
博士班資格考試申請書.....	(附表 5)
Doctoral Qualifying Exam Application Form	
博士班資格考口試書面報告規範.....	(附表 6)
Appendix -Guideline of the PhD oral qualifying examination	

三、畢業生畢業相關表單

博士班學位論文口試資格審查申請單..... (附表 I)

Doctoral Oral Exam Application Form

畢業生離所申請表.....(附表 II)

Application for Commencement

合著人放棄證明..... (附表 III)

Co-First or Corresponding author suspend statement

博士班公開演講表單.....(附表 IV)

List of Doctoral Seminar

期中畢業申請書..... (附表 V)

Application for Commencement (Mid-term)