國立臺灣大學生物資源暨農學院生物科技研究所碩士班
必(選)修課程表
IOB Master's Program Course List and Guideline

【修業規定 Graduation requirement】

碩士班：畢業學分數 24 學分。

Graduation requirement: 24 credits

必修學分 (14 學分) Compulsory/ Required Credits (14 Credits)	專題討論：2 學分 Seminar: 2 Credit （在學期間必修，包含畢業之當學期） (This course is required during the entire period of study, including the semester in which the student graduates)
	生物技術核心實驗：4 學分 Biotechnology core techniques: 4 Credit (於大學部已修過本校上述課程者,得以選修本校 U, M, D 字頭課程替代) (Students who have previously taken the above-mentioned courses at the undergraduate level in NTU may replace them with U-, M-, or D-coded courses offered by the university.)
	生物科技管理與產業分析：2 學分 Management and Analysis in the Biotechnology Industry: 2 Credit OR 尖端生技邁向新興產業專論：2 學分 Special topics of biotechnology and emerging industry: 2 Credit (二選一) (AGEC7080) 農企業管理學 Agribusiness Management (3) (Only foreign students are eligible to take Agribusiness Management as compulsory credit.) 超出之必修學分不記入選修。 Required credits in excess of the stipulated amount will not be counted toward the elective credit requirement
	本所 M 或 D 字頭課程：6 學分 courses numbers start with M-, or D- courses: 6 credits
選修學分 (10 學分) Selective Credits (10 Credits)	本校 U、M 或 D 字頭課程：10 學分 (專題討論最多認列 2 學分) courses numbers start with U-, M-, or D- courses: 10 credits (A maximum of 2 credits from Seminar may be counted)
其他 Other	碩士論文 (不計學分，畢業當學選修) Master's Thesis (No credit; to be registered in the semester of graduation)

【選課說明 **Guideline for Course selection**】

修業年限 1 至 4 年，修畢 24 學分並提出研究論文，通過學位考者，可獲頒碩士學位。

必修 14 學分：專題討論(2 學分)、生物技術核心實驗(4 學分)、生物科技管理與產業分析或尖端生物科技邁向新興產業專論(2 學分)、本所 M 或 D 字頭課程(6 學分)。

選修 10 學分：本校 U、M、D 字頭課程(專題討論最多認列 2 學分)。

因出國研究經指導教授及所長同意者，得免修當學期之專題討論。

摘錄本校研究所博士暨碩士學位考試規則如下：

http://host.cc.ntu.edu.tw/sec/All_Law/02/02-013.pdf (完整內容請參閱)

第二條 研究生符合下列規定者，得申請碩士或博士學位考試：

一、碩士班修業逾一學期，博士班修業逾三學期。逕行修讀博士學位者，在博士班修業逾三學期。…

第三條 研究生申請碩士或博士學位考試，應依下列規定辦理：

一、申請期限：

第一學期自行事曆上課開始日起，至十一月卅日止；第二學期自行事曆上課開始日起，至四月卅日止。但因特殊原因經指導教授、系主任、所長或學位學程主管同意者，不在此限。

二、申請時，應填具申請書，並檢齊下列各項文件：

(一)歷年成績表一份。

(二)論文初稿及其提要各一份。…

三、經指導教授及所屬系主任、所長或學位學程主管同意後報請學校核備。

第五條 組織碩士或博士學位考試委員會，應依下列規定辦理：

一、碩士學位考試委員三至五人，博士學位考試委員五至九人，由校長遴聘之，並由系主任、所長或學位學程主管指定一人為召集人，但指導教授不得擔任召集人。碩、博士班學生之配偶或三親等內之血親、姻親，不得擔任其指導教授、學位考試委員。…

三、碩士學位考試委員，除對碩士班研究生所提論文學科、創作、展演或技術報告有專門研究外，並應具備下列資格之一：

(一)曾任教授或副教授者。

(二)擔任中央研究院院士或曾任中央研究院研究員、副研究員者。

(三)獲有博士學位，在學術上著有成就者。

(四)屬於稀少性或特殊性學科，在學術或專業上著有成就者。

前款第三目、第四目之提聘資格認定標準，由各系(所)務會議訂定之。

學位考收件截止日：上學期11/30，下學期4/30，因需資料審查請提前5日繳送所辦公室，相關規定請詳閱學位考時程表。

Study duration: 1 to 4 years. Students who complete 24 credits, submit a research thesis, and pass the degree examination will be awarded a master's degree.

Required 14 credits: Seminar (2 credits), Biotechnology Core Techniques (4 credits), Management and Analysis in the Biotechnology Industry or Special Topics of Biotechnology and Emerging Industry (2 credits), M- or D-level courses from the institute (6 credits).

Elective 10 credits: NTU U-, M-, or D-level courses (a maximum of 2 credits from Seminar may be counted). Students approved by both their advisor and the institute director for overseas research may be exempted from Seminar for that semester.

Excerpt from NTU Regulations for Master's and Doctoral Degree Examinations:
Full text here

Article 2 Graduate students meeting the following requirements may apply for the master's or doctoral degree examination:

1. Master's students must have studied for more than one semester; doctoral students, more than three semesters. Direct-entry doctoral students must have studied for more than three semesters in the doctoral program. …

Article 3 Applications for the master's or doctoral degree examination must follow these rules:

1. Application period:
   - First semester: from the first day of classes according to the academic calendar until November 30.
   - Second semester: from the first day of classes until April 30.
     Exceptions may be made with approval from the advisor, department chair, institute director, or program director.
2. Required documents at application:
   (1) One copy of the complete transcript.
   (2) One copy each of the thesis draft and its abstract. …
3. After obtaining approval from the advisor and the department chair, institute director, or program director, the application must be submitted to the university for final approval.

Article 5 The master's or doctoral degree examination committee shall be organized as follows:

1. The master's degree examination committee shall consist of three to five members, and the doctoral committee shall have five to nine members, appointed by the university president. One member is appointed as the convener by the department chair, institute director, or program director, but the advisor may not serve as convener. A student's spouse or relatives within the third degree of kinship may not serve as the advisor or committee member. …
2. In addition to having expertise in the subject of the thesis, creation, performance, or technical report, master's examination committee members must meet one of the following qualifications:
   (1) Former or current professor or associate professor.
   (2) Academician or former research fellow/associate research fellow of Academia Sinica.
   (3) Holder of a doctoral degree with notable academic achievements.
   (4) Notable academic or professional achievements in a rare or specialized field.
   The qualification criteria for (3) and (4) are determined by the department/institute faculty meeting.

Degree examination application deadlines: Fall semester – November 30; Spring semester – April 30.
Due to required document review, applications must be submitted to the institute office at least five days in advance. Please refer to the degree examination schedule for detailed regulations.

【必選修課程表　Course List】

教學課號	課程識別碼 Couse No.	科目名稱 Course Name	授課老師 Instructor	學分 Cresits
Biot 7999	642 M0010	碩士論文 Master's Thesis	須選 導師 enroll in the courses conducted by assigned mentor	0
Biot 7001	642 M0020	重組蛋白質生產技術 Production of Recombinant Proteins	劉嘉睿 Je-Ruei Liu	2
Biot 7003	642 M0040	微陣列技術專論 Special Topics in Microarray Technologies	蔡孟勳 Mong-Hsun Tsai	2
Biot 7004	642 M0050	微生物技術特論 Special Topics in Microbial Biotechnology	劉嘉睿 Je-Ruei Liu	3
Biot 7005	642 M0060	環境微生物機能工學特論 Special Topics in Environmental Microbial Engineering	劉啟德 Chi-Te Liu	3
Biot 7006	642 M0070	植物-微生物分子訊號傳達 Molecular Signal Transduction in Plant-Microbe Interactions	劉啟德 Chi-Te Liu	2
Biot 7007	642 M0080	植物病毒學與生物技術新知 Frontier of plant virology and biotechnology	林詩舜 Shih-Shun Lin	2
Biot 7008	642 M0090	生物材料生產分析與應用 Production, characterization and application of biomaterials	鄭光成 Kuan-Chen Cheng	2
Biot 7009	642 M0100	生物科技基礎實務 Basic practice of Biotechnology	林詩舜 Shih-Shun Lin	2
Biot 7010	642 M0110	生物科技進階實務 1 Advanced practice of Biotechnology (1)	林詩舜 Shih-Shun Lin	3
Biot 7011	642 M0120	生物科技進階實務 2 Advance practice of Biotechnology (2)	林詩舜 Shih-Shun Lin	3
Biot 7012	642 M0130	應用暨食品微生物論文研究與寫作 Study and Writing in Applied and Food Microbiology	鄭光成 Kuan-Chen Cheng	2
Biot 7013	642 M0140	生物科技管理與產業分析 Management and Analysis in the Biotechnology Industry	孫智麗	2
Biot 7014	642 M0150	表觀基因體學特論 Frontiers in Epigenomics	林劭品 Shau-Ping Lin	2