

## Laboratory Rotation/ Seminar I&II Guidelines

**Effective from September 2019 and applicable for CBMB students enroll after 2019**

1. The purpose of lab rotations is to help new students choose a lab for conducting thesis research. Students must identify a Supervisor by the end of first academic year as of **31 July**. Failure to complete this requirement leads to stipend deduction and/or termination of studentship.
2. NTU-IBS, CHEM, DGP and NTHU LS students should register for Lab Rotation course in the spring semester, while **NTHU CHEM students** should register for **Seminar I** (CHEM650000) & **II** (CHEM651000) course in the autumn and spring semester in the first academic year respectively for rotating in labs. Bachelor degree holder NTHU CHEM students are required to follow the same regulations and guidelines to do rotations as others but they will not register for Seminar I & II until they become a PhD student.
3. Students are required to do at least two rotations at the regulated timeframes below. An additional rotation opportunity will be available if the student is not able to joining a lab for research at the end of second rotation. Missing deadlines for joining rotations or form submissions will lead to **1/3 of monthly stipend deducted** till the student starts the rotation.
  - First rotation: 1 October-31 December
  - Second rotation: 15 January-15 April
  - Third rotation (1 May-15 July) is available for those who can't fix the lab by the end of second rotation.
4. Students are advised to do rotations with CBMB lab supervisors who are eligible to take students denoted by 🧐 on the CBMB website. Students shall spend enough time in the lab to understand the research project and approaches, to interact with lab members and the lab supervisor, and to learn and carry out experiments. A mutual agreement between the lab host and the rotation student should be submitted to the CBMB Programme Office prior to the start of each rotation. See template below.
5. A summary report of at least 1500 words (references not included) for each lab rotation/research is required. The report should be uploaded to Turnitin.com to generate a similarity report, and should be submitted to the lab supervisor with Turnitin annotation and an evaluation form in one week upon completion of one rotation. The report should contain clear descriptions of the research topic, scope of the research project, experimental design, results, discussion, and references.

6. Students should include a cover page in their reports. See below for template.
7. The lab supervisor should submit the evaluation form to the CBMB Office via email or post in one week upon receiving student's report. In addition, students are required to complete a **Rotation Student Feedback Form** of each laboratory rotation.
8. Failure to complete the research, late submissions, and miss deadlines will result in the failure of this required course and/or stipend deduction.
9. Each faculty member can only take one rotation student at a time.
10. Students will be evaluated by the research advisor: 70% of the grade is based on overall performance throughout the semester, and 30% on the written report.

Note: Failure to submit the written report is considered a failure of the course.

11. **Plagiarism is strictly prohibited** and will result in immediate failure of the course (score=0).
12. The monthly stipend will have deduction in the following year if the student does not score above 73.
13. Specific instructions:
  - (1) To learn about CBMB faculty members' research from the CBMB website or from the faculty member directly. Faculty members who are eligible to take students are denoted by 🧐. Students should double check with the CBMB Office whether or not the professor the student intends to work with for rotation is eligible to take students.
  - (2) Reach out for a lab rotation opportunity via emails or visits. You should introduce yourself with CV attached for reference.
  - (3) To arrange a time to meet the lab supervisor in person for further discussions and confirm the rotation, and send the **Rotation Confirmation Form** to the CBMB Office before rotating in a lab by regulated deadlines.
  - (4) Upon completion of one rotation, the student should send an at least 1500 words summary (reference not included) with Turnitin annotation and an evaluation form to the lab supervisor in one week.
  - (5) The student should remind the lab host(s) of submitting the evaluation form to the CBMB Office via email or post.
  - (6) The student should fill out a **Rotation Student Feedback Form** to the CBMB Programme Office to complete the procedure.



## Laboratory Rotation Confirmation

### Preamble:

The purpose of lab rotations is to help students identify a lab to conduct research. The lab supervisor should make sure he/she has sufficient faculty points to take students, and that he/she has budget to support student stipends (starting from the third year of student's study) before taking an individual for a laboratory rotation. It is the lab supervisor's responsibility to ensure students can conduct research in a professional, safe and positive environment. A lab supervisor can only take one rotation student at a time. This confirmation should be sent to the Programme Office via email before the student starts the rotation.

To improve the lab rotation experience, please discuss the following objectives of each rotation with your research mentor and the rotation student that generally include the following:

1. To acquaint students with potential dissertation mentors. Students will:
  - a. Receive a briefing on the research focus of the laboratory from the PI
  - b. Receive research papers to read and discuss with the PI and research mentor during the rotation
2. To introduce students to the conduct of laboratory research. Students will:
  - a. Conduct a research study with the goal of understanding the basis for the hypothesis being tested and the general approach to test the hypothesis, under the guidance of the research mentor
  - b. Participate in group or laboratory meetings required by the PI
3. To acquire skills in diverse laboratory techniques. Students will:
  - a. Learn techniques (theory, limitations, etc) associated with the rotation project by collaborating with a research mentor (e.g. a graduate student, postdoctoral trainee and/or technician)
  - b. Conduct laboratory research under the guidance of the research mentor
4. PIs will encourage students to present their lab rotation project in an informal venue (e.g. talk at a lab meeting) at end of the rotation
5. Evaluation of Laboratory Rotations.

Within one week upon completion of a rotation, a summary report of at least 1500 words (references not included) along with Turnitin annotation and an evaluation form will be submitted to the PI. The report should contain clear descriptions of the research topic, scope of the research project, experimental design, results, discussion, and references. The PI will submit an evaluation form to CBMB Programme Office within one week upon receiving the student's report. In addition, students are required to complete an evaluation of each laboratory rotation. Failure to submit timely evaluations will result in an incomplete grade for the course.

I, 按一下這裡以輸入文字。 , have read and gone through items listed in this document, and have agreed to take 按一下這裡以輸入文字。 for rotation for the timeframe ticked below. I will submit an evaluation form with clear comments regarding the student's performance in the lab to the Programme Office via email within one week after receiving student's report. I will ensure the student is properly guided by me and the research mentor I assign to mentor the student.

First rotation: 1 October-31 December

Second rotation: 15 January-15 April

Third rotation (1 May-15 July) is available for those who can't fix the lab by the end of second rotation.

\_\_\_\_\_  
(Lab Supervisor's signature)



*TIGP CBMB*

## **TIGP-CBMB Laboratory Rotation Cover Page**

### **Rotation period:**

- First rotation: 1 October-31 December
- Second rotation: 15 January-15 April
- Third rotation (1 May-15 July) is available for those who can't fix the lab by the end of second rotation.
- Other timeframe: 按一下這裡以輸入文字。

### **Student Name:**

### **Laboratory Supervisor:**

### **Title of Project:**

### **Number of words (reference excluded):**



## TIGP-CBMB Lab Rotation Evaluation Form

This form should be filled and signed by the lab supervisor with clear comments and score (0-100) given to the CBMB Programme Office via email within one week upon receiving student's report. The student's report should be sent to the lab supervisor along with Turnitin annotation and evaluation form within one week upon completing the rotation.

Student Name:		Laboratory Supervisor:	
Title of Project:			
Rotation period:	<input type="checkbox"/> First rotation: 1 October-31 December <input type="checkbox"/> Second rotation: 15 January-15 April <input type="checkbox"/> Third rotation: 1 May-15 July <input type="checkbox"/> Other timeframe: 按一下這裡以輸入文字。		
Date of student report submitted	按一下這裡以輸入日期。		

**Please use the student in the following areas using these numerical codes:**

(0) N/A (1) Unacceptable (2) Poor (3) Average (4) Proficient (5) Excellent

Time in the laboratory well spent:	
Ability to budget time efficiently:	
Understanding of the project:	
Reading and use of the literature in solving problems:	
Ability to execute experiments:	
Ability to work safely:	
Oral communication ability:	
Lab notebook:	
Ability to work with others:	
Attendance and participation in lab meetings, seminars, etc	
Adherence to deadlines and regulations:	

Please comment on any other areas you feel are relevant and if grade is below average. Please explain why (use back of form if more space is needed):

--

Overall summary grade for student's rotation performance 1-70%: 按一下這裡以輸入文字。

Overall summary grade for student's rotation report 1-30%: 按一下這裡以輸入文字。

Total of rotation performance and report 1-100%: 按一下這裡以輸入文字。

Are you willing to accept the rotation student if the student requests to join your lab:  Yes;  No

(Lab Supervisor's signature)