

BCHE4910

Group Research in Biochemistry
Biochemistry Programme

Biochemistry Majors will do A capstone course - FYP

 Literature research

 Individual research project

 Group research project

Course Outline and Syllabus

Students should form groups with **three to four students** at the beginning of **Term 1**. Students in one group should **identify a project area and confirm their project title and content** by the end of the ADD/DROP period with a **written proposal**. The project will last for **6-8 weeks**, where the students in a group are required to investigate **a specific topic with team work and team building elements**. This **project should not be just a purely academic research study** but a project related to **various impact of biochemistry on the society of Hong Kong with or without some wet laboratory components**. At the end of the course, the students will present their findings and conclusions in an **open poster presentation** and submit a **written report**.

Team work and team building

Students should learn the importance of **good collaboration** among the people working in a group to **achieve a shared goal**. The team members should **share the vision** to **complete the project effectively and efficiently** before a deadline. Also, students working in a team should learn to **trust and respect each other** and **every member should have its own duties and responsibilities**.

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Group Research in Biochemistry

Offered in Term 1 (2018-2019)

Three teams accepted

Three to four students per team
(Biochemistry students only)

Topics related to real life applications

**Each group should decide on
their own topics**

(Matching with Supervisor)

Support

- Basic financial support/team: HK\$ 10K
- Submit a proposal for further financial support
- Total additional amount in 2018/19: HK\$ 60K
(To be reimbursed for actual expenses within budget by installments)
- To conduct research or survey during summer:
SCE402 reserved for experiments in office hours only, if mentioned in proposal, subject to safety regulations.

Leading Assessment Criteria:

1) Innovation and design (I&D):

- Is the project innovative?
- Is the project thoughtfully designed?

2) Social enterprisingness (SE)

- Can the project lead to benefit to the society?
- Can the project be financially sustainable?
- Can the project lead to potential service/projects which can be employed in social enterprises?

3) Global citizenship (GC)

- Is the project culturally sensitive?
- Are there any global perspectives in the project?

Assessment

Assessment items	Proposal	Poster	Report
Findings, Organization & Presentation	5%	15%	5%
Innovation and Design	5%	5%	5%
Social Enterprisingness	5%	5%	5%
Global Citizenship	5%	5%	5%
Total	20%	30%	20%
Remark	<ul style="list-style-type: none"> • A proposal template is available • Supervision available • Assessed by 2 academic staff 	<ul style="list-style-type: none"> • Exhibition: Weekday Afternoon • Science Center Southern Block, G/F Lobby 	<ul style="list-style-type: none"> • Assessed by 2 academic staff
Supervisor Assessment (20%)	Student's attitudes: Meet supervisor for at least THREE TIMES or MARK DEDUCTION		
Peer Assessment (10%)	<ul style="list-style-type: none"> • 5%: Student's attitudes WITHIN a group • 5%: Poster performance evaluated by OTHER GROUPS 		

Milestones

- A) **Deadline: Submit your Initial Application Form (Items 1-3 of the Proposal document) to Dr. Lo FH on or before 26 Feb 2018 (Monday) OR 19 Mar (Monday), 5:00 pm. 1st Announcement will be made before 28 Feb 2018 2nd Announcement will be made before 21 Mar 2018 (After screening, only 3 teams will be accepted!!)**
- B) **May-June: Confirm a Topic, Draft a Proposal, Meet your Supervisor**
- C) **Drop-out* → Literature/Research FYP**
- D) **June-August: Settle the Work Flow, Project Execution**
- E) **Drop-out* → Literature/Research FYP**
- F) **August-November: Project Execution,, Poster & Report Writing**

*** (A team should contain at least 3 members!)**

Sample Project

A) Survey of genetically modified (GM) papaya in Hong Kong

- 1) GM food in Hong Kong studied by literature research
- 2) GM papaya in Hong Kong studied by market research
- 3) Collection of papaya samples in local farms & markets
- 4) Questionnaire survey with farmers
- 5) Interview with related parties (e.g. Produce Green Foundation (綠田園))
- 6) PCR analysis of the papaya samples to screen for genetic modifications (experiments in SCE402)
- 7) Results sharing by poster presentation (exhibition for public)
- 8) Prototype production: reagent kits & hardware for GM food testing
- 9) Running a mini-workshop with non-science students and conducting questionnaire surveys

B) eLearning Materials

- 1) Prepare Teaching and Learning materials for a Biochemistry topic (e.g., on-line video, virtual lab, MCQs etc.)

Question & Answer

End