

BMS2301A: BIOMEDICAL RESEARCH – ROTATION PROJECT II (THEME A)

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Biomedical Research – Rotation Project II (Theme A)

Subject Code

BMS - Biomedical Sciences

Course Number

2301A

Academic Unit

Biomedical Sciences (BMS)

College/School

Jockey Club College of Veterinary Medicine and Life Sciences (VM)

Course Duration

One Semester

Credit Units

1

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

BMS1701A / BMS1701B / BMS1701C (The above-mentioned prerequisites are waived for Biological Sciences major students who were admitted from 2018 FYFD intake.)

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Additional Information

*Project theme to be advised by each semester

Part II Course Details

Abstract

This course BMS2301A is the first research rotation in a series of 3 courses (BMS2301A / BMS2301B / BMS2301C) for the 2nd year undergraduate students. This course aims to provide student an opportunity to gain research experience in a state of the art research laboratory at the University. In this course, students will do literature review and participate in research under a faculty member in the biomedical sciences department. They should discuss the research topic(s) with their assigned supervisor on a regular basis. At the end of the course, they will give an oral presentation and submit a report summarizing the learned research techniques and their research findings as part of the course requirement. After finishing this rotation, students are expected to gain sufficient knowledge and lab skills in different research areas and be well prepared for final year project in their 4th year of study.

Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1 Demonstrate the ability to master scientific research techniques, make scientific observations, ask specific questions and gather information		x	x	x
2 Criticizes the scientific literature and analyse the experimental data			x	
3 Design and carry out an laboratory based project		x	x	x
4 Evaluate the collected data and present it in both written and oral form			x	x

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1 Literature study	Literature review involves critical reading and understanding on scientific articles.	1, 2	
2 Seminars/ Sharing sessions	Practice and refine one' s own skills in discussions and sharing of ideas with others with confidence	1	

3	Student and Supervisor discussion	Regular discussion between student and supervisor on reviewing the progress of the research project, and give feedbacks to the students	1, 2	
4	Experimental/Bench work	Plan and perform experiments. Keep experimental record in a log book and submit to supervisor for assessment.	1, 3, 4	

Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Oral Presentation	1, 2, 3, 4	50
2	Summary Report	1, 2, 3, 4	50

Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)**Assessment Task**

1. Oral Presentation

Criterion

Ability to explain the research conducted in detail and the quality of your oral presentation

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

2. Summary Report

Criterion

Ability to explain the learned research techniques and the research conducted in detail and the quality of your written report

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Part III Other Information**Keyword Syllabus**

- Research rotation
- Literature review
- Biomedical sciences
- Cancer research
- Neuroscience
- Regeneration medicine
- Nano medicine
- Microbiology
- Genetics, epigenetics and genomics

Reading List**Compulsory Readings**

Title	
1	The CityU library has a research guide arranged by subject department: http://libguides.library.cityu.edu.hk/
2	Pubmed http://www.ncbi.nlm.nih.gov/pubmed
3	Google Scholar: http://scholar.google.com

Additional Readings

Title	
1	Nil