City University of Hong Kong
Course Syllabus

offered by Department of Neuroscience
with effect from Semester A 2023/24

Part I Course Overview

Course Title:	Research Methodology and Ethics
Course Code:	NS5001
Course Duration:	One semester
Credit Units:	3
Level:	P5
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course aims to provide the overview of the fundamental elements of research ethics and methodology which are essential in the conduction of biomedical research. Through the completion of this course, students are going to learn the definition of research ethics and its related issues, and research methods to manage valid data with high integrity, and they will learn how much important is to keep the responsibility for research result and publication. In addition, students are going to learn how to obtain the essential knowledge of biomedical research, the effective method and design of research experiment, the precise quantitative and qualitative analysis of data, and the impactful presentation of research report.
Through discussion in the formal forums among students, they will broaden their knowledge and expertise, they will improve the presentation skill of their research findings, and they will further share their learning experiences with their peers and academic staff.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs[#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Learn important issues and criticism in research ethics in the conduction of experiments and the analysis of research data.	10%	✔	✔	✔
2.	Formulate hypothesis and identify gaps of current knowledge	10%	✔	✔	
3.	Apply different methodologies to address the biological questions	10%		✔	✔
4.	Present and discuss scientific findings effectively	10%	✔	✔	✔
5.	Develop critical interpretation of scientific data	35%	✔	✔	✔
6.	Communicate idea effectively through writing	25%		✔	✔
	** If weighting is assigned to CILOs, they should add up to 100%.*	100%			

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 self-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.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4	5	6	
Lecture & Group work	Class activities are made up of lectures and group works. The latter are used as a platform for reflective and interactive learning among students and instructors or research supervisors. Activities include, proposal writing, presentation, group discussion and debate, and critique of the research design, data, and methodology of selected published works in general.	✔	✔	✔	✔	✔	✔	

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.						Weighting*	Remarks
	1	2	3	4	5	6		
Continuous Assessment: _100___%								
Proposal writing, Presentation, group discussion, critique, etc.	10	10	10	10	35	25	100%	
Examination: __0__% (duration: , if applicable)								

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
Presentation, group discussion, critique etc.	Ability to show the learning progress, analyse and express the synthesis of ideas	Outstanding performance on all CILOs. Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.	Substantial performance on all CILOs. Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.	Satisfactory performance on the majority of CILOs possibly with a few weaknesses. Being able to profit from the course experience; understanding of the subject; ability to develop solutions to simple problems in the material.	Unsatisfactory performance on a number of CILOs. Failure to meet specified assessment requirements, little evidence of familiarity with the subject matter; weakness in critical and analytic skills; limited or irrelevant use of literature

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

Research ethics, research design, research methodology, quantitative and qualitative methods and analysis, research writing and presentation

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

N/A

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1	Lewis Vaughn, Bioethics: Principles, Issues, and Cases 4th Edition, 2022
2	Paul Leedy and Jeanne Ormrod, Practical Research (10th edition), Pearson, 2012
3	Rowena Murray, How to Write a Thesis (3rd edition), Open U Press, 2011
4	Tony Greenfield (Ed), Research Methods for Postgraduates (2nd edition), Arnold, 2009
5	Wayne C Booth et al, The Craft of Research (3rd edition), Publ. Chicago U Press, 2008
6	Online learning materials: Provided via University computer network