

BMS8001: RESEARCH ETHICS AND METHODOLOGY

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Research Ethics and Methodology

Subject Code

BMS - Biomedical Sciences

Course Number

8001

Academic Unit

Biomedical Sciences (BMS)

College/School

College of Biomedicine (BD)

Course Duration

One Semester

Credit Units

2

Level

R8 - Research Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

NS5001 Research Methodology and Ethics

Exclusive Courses

Nil

Part II Course Details

Abstract

This course aims to provide MPhil/PhD students with

- a. the fundamental elements of research ethics and methodology which include problem definition, literature search and review, quantitative and qualitative methods, research tools and research reporting;
- b. formal forums for the research students to:
 - broaden their knowledge and expertise;
 - present their research findings and discuss their learning experiences with their peers and academic staff; and
 - develop a strong research mindset and scholarship.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Discuss the fundamentals of research methodology and tools.	10	x	x	
2	Formulate a research framework for the selected MPhil/PhD research topic.	10	x	x	
3	Search and critique relevant literature relating to the selected MPhil/PhD research topic.	10		x	
4	Apply the research methodology and tools in the development of the research proposal.	40		x	
5	Communicate with fellow peers regarding own or others' research findings and experience scholarly and logically.	30	x	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.

Learning and Teaching Activities (LTAs)

LTAs		Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture, group work	Class activities are made up of lectures and group work. The latter is used as platform for reflective and interactive learning among the students and the instructors or research supervisors. Activities include, proposal writing, presentation, group discussion and critique of the research design and methodology of selected published works in general.	1, 2, 3, 4, 5	26 hours in total

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Presentation, group discussion, critique etc.	1, 2, 3, 4, 5	100	

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

0

Minimum Examination Passing Requirement (%)

0

Assessment Rubrics (AR)**Assessment Task**

Presentation, group discussion, critique etc. (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Ability to show the learning progress, analyse and express the synthesis of ideas

Excellent

(A+, A, A-) 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.

Good

(B+, B, B-) 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.

Fair

(C+, C, C-) 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.

Marginal

(D) Barely satisfactory performance on a number of CILOs. Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.

Failure

(F) 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

Assessment Task

Presentation, group discussion, critique etc. (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Ability to show the learning progress, analyse and express the synthesis of ideas

Excellent

(A+, A, A-) 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.

Good

(B+, B) 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.

Marginal

(B-, C+, C) 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.

Failure

(F) 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

Keyword Syllabus

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

Reading List

Compulsory Readings

Title	
1	Nil

Additional Readings

Title	
1	Paul Leedy and Jeanne Ormrod, Practical Research (10th edition), Pearson, 2012
2	Rowena Murray, How to Write a Thesis (3rd edition), Open U Press, 2011
3	Tony Greenfield (Ed), Research Methods for Postgraduates (2nd edition), Arnold, 2009

4	Wayne C Booth et al, The Craft of Research (3rd edition), Publ. Chicago U Press, 2008
5	Online learning materials: Provided via University computer network