

BMS5001: COMMON DISEASES AND GENOMIC MEDICINE

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Common Diseases and Genomic Medicine

Subject Code

BMS - Biomedical Sciences

Course Number

5001

Academic Unit

Biomedical Sciences (BMS)

College/School

College of Biomedicine (BD)

Course Duration

One Semester

Credit Units

3

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

BMS5001A

Part II Course Details

Abstract

This course is designed for the students to gain knowledge on several common diseases in human regarding epidemiology, etiology, pathophysiology, treatment and prevention as well as on the recent advancements based on cutting-edge technology in genomic medicine. Over the course of the subject, student will study several major diseases that are known to have a significant impact on public health worldwide. Major diseases including those of cardiovascular, endocrine, neurodegenerative, digestive, rheumatology, and cancer. Special emphasis is placed on diseases that represent a threat to public health in HK and Asia and advance managements of these diseases at the forefront developments in genomic medicine. Lectures are given by faculty members with relevant expertise and experience. Lecturers will provide an overview of the current technological advances that impact health care and public reaction to scientific discoveries. Discussion round tables /group presentations are supervised by individual lecturer and organized together with local and/or invited faculty members.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe the epidemiology and etiology of the major diseases such as diseases of cardiovascular, endocrine, neurodegenerative, digestive, rheumatology and cancer.	20			
2	Explain symptoms, pathophysiology and therapeutic options of the major diseases.	20			
3	Describe the prevention and risk reduction strategies and discuss treatment strategies for the major diseases;	30			
4	Apply critical thinking and reasoning skills towards public health policy formation and design management strategies for the major diseases.	30			

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)
Lecture	Students will engage with key theories and technologies related to the major diseases.	1, 2, 3, 4	

2	Group discussions	Students will be divided into groups (6 – 8 students per group) and have group discussion and presentation on selected disease topics.	1, 2, 3, 4	
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Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)	
1	Coursework (home assignments, case studies and presentation)	1, 2, 3, 4	50	
2	Written report on selected topics	1, 2, 3, 4	50	

Continuous Assessment (%)

100

Assessment Rubrics (AR)**Assessment Task**

Case study and group presentation (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 and knowledge

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

Written assignment (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Ability to synthesize, state and apply the principles and subject matter learnt in the course

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

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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

Case study and group presentation (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 and knowledge

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

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Part III Other Information**Keyword Syllabus**

Epidemiology, Etiology, and Symptoms of the major diseases.

Risk factors and Risk reduction strategies, Pathophysiology, and Therapeutic options

Reading List**Compulsory Readings**

Title	
1	Nil

Additional Readings

Title	
1	Nil