

BMS2002: PATHOPHYSIOLOGY

Effective Term

Semester A 2025/26

Part I Course Overview

Course Title

Pathophysiology

Subject Code

BMS - Biomedical Sciences

Course Number

2002

Academic Unit

Biomedical Sciences (BMS)

College/School

College of Biomedicine (BD)

Course Duration

One Semester

Credit Units

3

Level

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

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course presents a systemic approach to the study of the changes in human physiology due to diseases. Lecture presentation begins with an introduction of terminology and an overview of cellular defense, inflammation and neoplasia.

Students then learn the pathophysiology of the following systems: nervous, endocrine, circulatory, respiratory, digestive, skeletal, urinary, and reproductive. Lectures meet twice weekly.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain the principle of cellular pathology.	20			
2	Describe cell adaptation, cell injury, cell death and pathology of organelles	15		x	
3	Recognize the basic principles of extracellular pathology and the related application in inflammation and wound healing.	15			
4	Describe immunopathology, transplantation, and autoimmune disease.	15			
5	Define key features of tumor. Describe the concept of tumour therapy.	15		x	
6	Relate pathology knowledge to the genetic disorder, virus and bacteria related diseases	20			

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	Lectures	Basic knowledge will be taught mainly by lectures.	1, 2, 3, 4, 5, 6	
2	Tutorials	A forum for problem solving by applying the knowledge learned from the lectures.	2, 3, 4, 5, 6	
3	Essay	An essay to evaluate the students' learning outcome.	1, 2, 3	

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Presentation	1, 2, 3, 4, 5, 6	15	-	No
2	Essay	1, 2, 3, 4, 5, 6	25	-	No

Continuous Assessment (%)

40

Examination (%)

60

Examination Duration (Hours)

2.5

Minimum Continuous Assessment Passing Requirement (%)

40

Minimum Examination Passing Requirement (%)

40

Additional Information for ATs

Minimum Passing Requirement : A minimum of 40% in coursework as well as in examination.

Assessment Rubrics (AR)

Assessment Task

Presentation

Criterion

The content and the logic of the presentation.

Excellent (A+, A, A-)

Background is well researched. The methods and results are explained in a logical and well-organized way. The logic flow is clear and coherent.

Good (B+, B, B-)

Background is well explained. The methods and results are clearly explained. The logic flow is clear and coherent.

Fair (C+, C, C-)

Background is sufficient. The methods and results are explained. The logic flow is clear.

Marginal (D)

The content is correctly presented but lacks details. The presentation is not easy to understand.

Failure (F)

Did not perform the presentation. Or the subject is poorly researched.

Assessment Task

2. Essay

Criterion

The content and the logic of the essay.

Excellent (A+, A, A-)

Subject is well researched and the content is explained in a well-organized way. The writing is logical and coherent.

Good (B+, B, B-)

The content is substantial. The writing is logical and coherent.

Fair (C+, C, C-)

The content is sufficient. The writing is easy to understand.

Marginal (D)

The content is correctly presented but lacks details. The writing is not easy to understand.

Failure (F)

Did not hand in the essay on time. Or the subject is poorly researched.

Part III Other Information

Keyword Syllabus

- Cellular adaptations
- Symptoms of cellular disease
- Pathology of the organelles
- Cell injury and response
- Cell death
- Extracellular pathology
- Inflammation
- Wound healing
- Immunopathology
- Genetic disorders
- Environmental pathology

Reading List**Compulsory Readings**

Title	
1	Introductory Pathophysiology for Nursing & Healthcare Professionals by Martin Steggall, Maria Dingle, Mary L. Mulvihill, Mark Zelman, Elaine Tompary , 2010, Pearson Education

Additional Readings

Title	
1	Cell, Tissue and Disease by Neville Woolf, 3rded., 2000, W.B. Saunders.