BMS4008: CLINICAL IMMUNOLOGY

Effective Term
Semester A 2022/23

Part I Course Overview

Course Title
Clinical Immunology

Subject Code
BMS - Biomedical Sciences
Course Number
4008

Academic Unit
Biomedical Sciences (BMS)

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

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 covers basic knowledge of molecular and cellular immunology of innate and adaptive immunity, and the development of various clinical and disease conditions when abnormalities of these immune responses arise. Students will

learn the different components of the immune system and their regulation, and immune disorders including autoimmunity, immunodeficiency, allergy, transplant rejection and tumour immunology. Students will also acquire knowledge on the detection and measurement of biomarkers that aid diagnosis, monitoring and treatment of these clinical conditions.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	To acquire basic knowledge on innate and adaptive immune systems	25		x	
2	To understand how abnormalities of the immune system leads to disease conditions	25	x	x	
3	To learn various laboratory investigations for diagnosis and monitoring of diseases related to disorders of immune system	25		x	x
4	To interpret laboratory results in the context of diseases relevant to disorders of immune system	25	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	Lectures	Basic knowledge will be taught mainly by lectures.	1, 2, 3, 4	
2	Tutorials	A forum for problem solving by applying the knowledge learned from the lectures.	1, 2, 3, 4	
3	Group presentation	Students will be divided into groups and each group will present a topic.	1, 2, 3, 4	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Participation		10	
2	Group presentation	1, 2, 3	20	
3	Mid-term quiz	1, 2, 3	20	

Continuous Assessment (%)
50

Examination (%)
50

Examination Duration (Hours)
3

Additional Information for ATs
Minimum Passing Requirement: A minimum of 40% in continuous assessment as well as in examination.

Assessment Rubrics (AR)

Assessment Task
1.Participation

Criterion
Attendance to lectures and tutorials

Assessment Task
2.Group presentation

Criterion
The content and style of the presentation; Handling of questions.

Excellent (A+, A, A-)
Presentation content and correct questions > 90%.

Good (B+, B, B-)
Presentation content and correct questions between 75% and 90%.

Fair (C+, C, C-)
Presentation content and correct questions between 60% and 75%.

Marginal (D)
Presentation content and correct questions between 50% and 60%.

Failure (F)
Presentation content and correct questions < 50%.

Assessment Task
3. Mid-term quiz

Criterion
The number of correct answers.

Excellent (A+, A, A-)
Correct questions > 90%.

Good (B+, B, B-)
Correct questions between 75% and 90%.

Fair (C+, C, C-)

Correct questions between 60% and 75%.

Marginal (D)

Correct questions between 50% and 60%.

Failure (F)

Correct questions < 50%.

Assessment Task

4. End-of-term examination

Criterion

To test students' basic knowledge learnt in class and see whether they can apply the knowledge in case studies

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Less than Basic

Failure (F)

Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

· Innate Immunity
· Adaptive Immunity
· Autoimmune diseases
· Immunodeficiency
· Hypersensitivity reactions and allergic diseases
· Transplant rejection
· Immunoassay

Reading List

Compulsory Readings

	Title
1	Parslow TG, Stites DP, Terr AI, Imboden JB. Medical Immunology, 10th edition, LANGE, 2001.
2	Geha R, Notarangelo L. Case Studies in immunology A clinical companion, 10th edition, Garland science,2016
3	Murphy K, Weaver C. Janeway's immunobiology, 9th edition, Garland science,2017
4	Pier GB, Lyczak JB, Wetzler LM. Immunology Infection, and Immunity, ASM press 2004

Additional Readings

	Title
1	Hall A, Scott C, Buckland M. Clinical immunology, 2nd edition, Oxford, 2016
2	Delves P, Martin SJ, Burton DR, Roitt IM. Roitt's essential immunology. 12th edition, Wiley- Blackwell, 2011
3	Kay AB, Bousquet J, Holt P, Kaplan AP. Allergy and allergic diseases. Wiley-Blackwell, 2008
4	Rose NR, Mackay IR. The autoimmune diseases, 5th edition, Academic Press, 2014