City University of Hong Kong
Course Syllabus

offered by Department of Biomedical Sciences
with effect from SemesterA 2020/2021

Part I Course Overview

Course Title:	Hematology
Course Code:	BMS3001
Course Duration:	One Semester
Credit Units:	3
Level:	B3
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
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)*	BMS3011 Hematology II (and BMS3011B Hematology II)

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course integrates advanced theory of hemotology, including normal and abnormal erythropoiesis and leucocyte, practical application, technical performance and evaluation of hematological and procedures. Overview of various topics in blood disorders associated with pregnancy, autoimmune haemolytic anaemia will also be discussed. Students will learn how to identify various types of blood cells and develop ability in hematological techniques conducted in pathology laboratories, including blood collection procedures, complete blood count, blood grouping, blood films, differential count, and staining methods for microscopy.

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.	Demonstrate a working knowledge of the theories and techniques utilized in standard laboratory procedures performed in Hematology		✓		
2.	Differentiate various hematological procedures and the use of basic equipment required to working in Clinical Hematology Laboratory			✓	
3.	Evaluate the validity of test results by correlating interfering substances, QC results, test conditions andspecimen integrity			✓	
4.	Evaluate test results with normal and abnormal physiologic circumstances			✓	
5.	Identify the various components of blood, their functions, and roles in various disease states			✓	
6.	Recognize OSHA safety regulations for blood borne pathogens.			✓	
7.	Develop the ability to communicate with medical laboratory specialists			✓	✓
** If weighting is assigned to CILOs, they should add up to 100%.*		100%			

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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	7	
Lectures and tutorials		✓	✓	✓	✓	✓	✓		
Laboratory sessions	Laboratory sessions will allow the students to develop practical skills	✓	✓	✓	✓	✓	✓	✓	

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	7		
Continuous Assessment: 40%									
Laboratory Exercises and others	✓	✓	✓	✓	✓	✓	✓	40%	
Examination: 60% (duration: 2-3 hours)									
Practical Examination	✓	✓	✓	✓	✓	✓	✓	30%	
Written Examination	✓	✓	✓	✓	✓	✓	✓	30%	
								100%	

"Minimum Passing Requirement" for this course:

- Continuous assessment: 40%; and
- Written examination: 40%; and
- Practical examination: 40%.

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, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Practical laboratory performance	Demonstrate the ability to apply what has been taught in lectures/tutorials into practice	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Final Examination	To test students 'application of material taught in class and evaluate their performance based on their performance on the exam	High	Significant	Moderate	Basic	Not even reaching marginal levels

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.)

- Hematopoiesis
  (Origin of erythrocytes, leukocytes and platelets Cell maturation processes)
- Routine Hematology Testing
  (CBC parameters (WBC, RBC, HGB, HCT, RBC Indices, PLT)
- Erythrocytes
- Leukocytes
- Platelets
- Special Hematology Testing
- Molecular diagnosis methods and practical skills

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.)

1.	McKenzie, Shirlyn B., Clinical Laboratory Hematology, Second Edition, Pearson Education, ISBN 0-13-513732-2
2.	Rodak, B.F., Fritsma, G.A. & Keohane, E. (2011) Hematology: Clinical principles and applications (4th ed.), Elsevier Saunders.
3.	Rodak, B.F. & Carr, J.H. (2012) Clinical Hematology Atlas (4th ed.), Elsevier Saunders.
4.	Sir John V. Dace & SM Lewwis, Practical Hematology, ISBN: 0 443019819
5.	Bunn, F.H. (2011) Pathophysiology of blood disorders, McGraw-Hill Medical. [e-book]
6.	Rozenberg, G. (2011) Microscopic haematology (3rd ed.), Elsevier Saunders.Smith, G. (2010) Problem solving in haematology, Oxford Clinical Publishing. [e-book]

2.2 Additional Readings

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

1.	American Journal of Haematology