香港城市大學
City University of Hong Kong

CIR-MAJ

Curriculum Information Record for a Major/Degree

Department of Biomedical Sciences
Effective from Semester A 2022/2023
For Students Admitted/Changed to the Major with Catalogue Term Semester A 2019/2020 and thereafter

The information provided on this form is the official record of the major/degree. It will be used for City University's database, various City University publications (including websites) and documentation for students and others as required.

In specifying the curriculum for a major/degree, "catalogue term" is used to determine the set of curriculum requirements that a student is following. By mapping the student record and the version of curriculum rules applicable, the graduation requirements of individual students will be evaluated accordingly. The catalogue terms of curriculum requirements that students will follow are summarized below (BUS/04/A5R):

Requirements	Catalogue Term
a) Common Requirements • Gateway Education • University Language • College/School requirement	The same as student's admission term
b) Major	
• For normative 4-year degree students who will join the majors allocation exercise	Effective term of the declared major
• For advanced standing students and 4-year degree students who already have a major at the time of admission	The same as student's admission term
• For students who have changed major	Effective term of the changed major
c) Stream	Follow the effective term of the associated major

Prepared / Last Updated by

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Part I Major/Degree Overview

Major	(in English)	:	Biomedical Sciences
	(in Chinese)	:	生物醫學
Degree	(in English)	:	Bachelor of Science
	(in Chinese)	:	理學士
Award Title#	(in English)	:	Bachelor of Science in Biomedical Sciences
	(in Chinese)	:	理學士 (生物醫學)

 # Please make reference to the "Guidelines on Award Titles" approved by the Senate when proposing new award titles or changes to existing award titles (Senate/86/A5R).

1. Normal and Maximum Period of Study

	Normative 4-year Degree
Normal period of study	4 years
Maximum period of study	8 years

2. Minimum Number of Credit Units Required for the Award and Maximum Number of Credit Units Permitted

Degree Requirements	**Normative 4-year Degree**
Gateway Education requirement *****	30 credit units
College/School requirement *****	Not Applicable
Major requirement	90 credit units (Core: 90 CUs Elective: 0 CUs)
Free electives / Minor (if applicable)	Remainder to fulfil the credit requirement for graduation, if any
Minimum number of credit units required for the award	**120 credit units**

Maximum number of credit units permitted	**144 credit units**

****** For details, please refer to the Curriculum Information Record for Common Requirements.*

3. Aims of Major

The major emphasizes the integration of basic knowledge in biomedical sciences with investigative skills and state-of-the-art technologies to enable students to understand the causes, diagnoses and treatments of human disorders and disease. It provides a basis for continuing academic development with integration of modern biomedical disciplines for holders of associate degrees or higher diplomas in biological sciences, health sciences, biomedical sciences and biotechnology. The programme is designed to prepare graduates for employment in biomedical research, medical device and diagnostics companies, and biotech and pharmaceutical industries. Our unique industry-informed curriculum provides the students with extensive exposure to medical laboratory technology and modern biotechnology, and applied research and clinical/industrial training opportunities through our strategic partnership with healthcare and medical laboratory sectors, and biotech and pharmaceutical industries.

4. Intended Learning Outcomes of Major (MILOs)

(Please state what the student is expected to be able to do on completion of the major according to a given standard of performance.)

Upon successful completion of this major, students should be able to:

No.	*MILOs*	*Discovery-enriched curriculum related learning outcomes (please tick where appropriate)*		
		A1	*A2*	*A3*
1.	Acquire experience in the areas of biomedical sciences and healthcare related industry, and the processes of design and development of diagnostic and therapeutic products, medical laboratory testing and food/drug safety testing, and discovery and innovation.	√	√	√
2.	Evaluate issues related to assurance and compliance to meet the requirements of health and safety regulations.	√		
3.	Apply the integration of basic knowledge and biomedical specialist subject areas to the understanding and the laboratory testing of infectious pathogens and physiological disorders.		√	
4.	Demonstrate required problem solving ability, discipline and subject-specific skill associated with laboratory practice, key transferable skills, and teamwork in basic and applied biomedical research.		√	√
5.	Meet the required levels and standards of relevant professional bodies		√	√

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 accomplishments of discovery/innovation/creativity through producing/constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Part II Major Requirement

(The catalogue term of the major requirement that students will follow will be the effective term of the declared/allocated major.

For normative 4-year degree students who will join the majors allocation exercise, the catalogue term of major requirement will be one year after admission.

For advanced standing students and 4-year degree students who already have a major at the time of admission, the catalogue term of major requirement will be the same as their admission term.)

1. Core Courses (90 credit units)

Course Code	Course Title	Level	Credit Units	Remarks
BMS1901	Calculus For Life Sciences	B1	3	
BMS2001	Medical Microbiology	B2	3	
BMS2002	Pathophysiology	B2	3	
BMS2003	Clinical Chemistry	B2	3	
BMS2004	Biochemistry	B2	3	
BMS2005	Human Physiology	B2	3	
BMS2007	Human Anatomy	B2	3	
BMS2008	Hematology I	B2	3	
BMS2201	Molecular Biology of the Cell	B2	3	
BMS2901	Introductory Biostatistics and Data Analysis	B2	3	
BMS3002	Cellular Pathology	B3	3	
BMS3003	Advanced Clinical Chemistry	B3	3	
BMS3004	Advanced Medical Microbiology	B3	3	
BMS3005	Medical Genetics	B3	3	
BMS3006	Transfusion Science and Technology	B3	3	
BMS3007	Ethics and Practice in Medical Laboratory	B3	3	
BMS3008	Modern Medical laboratory Techniques and Instrumentation	B3	3	
BMS3009	Clinical Laboratory /Industrial Attachment	B3	9	
BMS3011	Hematology II	B3	3	
BMS4001	Medical Informatics and Laboratory Management	B4	3	
BMS4002	Public Health and Emerging Infectious Diseases	B4	3	
BMS4003	Clinical Biochemistry and Molecular Diagnostics	B4	3	
BMS4004	Advanced Cellular Pathology	B4	3	
BMS4005	Medical Virology	B4	3	
BMS4006	Final Year Project: Medical Laboratory Research	B4	6	
BMS4007	Pharmacology and Toxicology	B4	3	
BMS4008	Clinical Immunology	B4	3	

2. Electives

Nil

Part III Admission Requirements for Entry to the Major, if any

(Admission requirements here refers to specific requirements for students already admitted to the College/School/Department with an undeclared major. Academic units can state the prerequisites required for admission to the major.)

Nil

Part IV Accreditation by Professional / Statutory Bodies

Nil

Part V Additional Information

Nil

Part VI Curriculum Map

(The curriculum map shows the mapping between courses and the MILOs. It should cover all courses designed specifically for the major.)

Course			MILOS					Discovery-enriched curriculum related learning outcomes		
Code	**Title**	**Credit**	**M1**	**M2**	**M3**	**M4**	**M5**	**A1**	**A2**	**A3**
Core Courses										
BMS1901	Calculus For Life Sciences	3					✓		✓	✓
BMS2001	Medical Microbiology	3	✓	✓		✓	✓	✓	✓	✓
BMS2002	Pathophysiology	3	✓	✓	✓		✓		✓	
BMS2003	Clinical Chemistry	3	✓	✓	✓		✓	✓	✓	✓
BMS2004	Biochemistry	3	✓	✓	✓		✓		✓	✓
BMS2005	Human Physiology	3	✓	✓	✓		✓	✓	✓	✓
BMS2007	Human Anatomy	3	✓		✓		✓		✓	
BMS2008	Hematology I	3			✓		✓	✓	✓	✓
BMS2201	Molecular Biology of the Cell	3	✓	✓	✓	✓	✓	✓	✓	✓
BMS2901	Introductory Biostatistics and Data Analysis	3	✓		✓		✓	✓	✓	✓
BMS3002	Cellular Pathology	3			✓		✓	✓	✓	✓
BMS3003	Advanced Clinical Chemistry	3			✓		✓	✓	✓	✓
BMS3004	Advanced Medical Microbiology	3			✓		✓	✓	✓	✓
BMS3005	Medical Genetics	3					✓	✓	✓	✓
BMS3006	Transfusion Science and Technology	3	✓	✓		✓	✓	✓	✓	✓
BMS3007	Ethics and Practice in Medical Laboratory	3		✓			✓	✓	✓	✓
BMS3008	Modern Medical Laboratory Techniques and Instrumentation	3	✓	✓		✓	✓	✓	✓	✓
BMS3009	Clinical Laboratory /Industrial Attachment	9	✓			✓	✓		✓	✓

Course			MILOS					Discovery-enriched curriculum related learning outcomes		
Code	**Title**	**Credit**	**M1**	**M2**	**M3**	**M4**	**M5**	**A1**	**A2**	**A3**
Core Courses										
BMS3011	Hematology II	3			✓		✓	✓	✓	✓
BMS4001	Medical Informatics and Laboratory Management	3	✓	✓			✓	✓	✓	✓
BMS4002	Public Health and Emerging Infectious Diseases	3			✓		✓		✓	✓
BMS4003	Clinical Biochemistry and Molecular Diagnostics	3				✓	✓	✓	✓	✓
BMS4004	Advanced Cellular Pathology	3			✓	✓	✓	✓	✓	
BMS4005	Medical Virology	3		✓	✓		✓	✓	✓	
BMS4006	Final Year Project: Medical Laboratory Research	6				✓		✓	✓	✓
BMS4007	Pharmacology and Toxicology	3			✓	✓	✓	✓	✓	✓
BMS4008	Clinical Immunology	3	✓		✓	✓	✓	✓	✓	✓

Attitude

A1: 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 accomplishments of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.