

Faculty of Health Sciences
Bachelor of Science in Biomedical Sciences
Curriculum (Major Code: BIO19) (Intensive Plan)

Year I		Credit	Semester		Type [^]
			1st	2nd	
Compulsory Major					
HSCI1000	General Chemistry	3	✓		CM
HSCI1001	General Chemistry Lab	2	✓		CM
HSCI1002	Introduction to Biological Sciences	3	✓		CM
HSCI1003	General and Clinical Biochemistry	3		✓	CM
HSCI1004	Biochemistry Lab	1.5		✓	CM
HSCI2004	Genetics and Epigenetics	3		✓	CM
HSCI3003	Biostatistics and Experimental Design	3		✓	CM
Languages and Skills					
EELC1001	Interactive English I	3			LS*
EELC1002	Interactive English II	3			LS*
Community and Peer Education					
CPED1000	Residential College Experiential Learning	1			CPE
CPED1001	Physical Education I	0.5			CPE
CPED1002	Physical Education II	0.5			CPE
CPED1003	Communication Skills and Leadership	1			CPE
General Education					
GEST1003	Quantitative Reasoning for Health Sciences (Area of Science & Technology)	3			GE [#]
GELH1000	Chinese Language and Culture (Area of Literature & Humanities)	3			GE [#]
Free Elective		3			FE
		Credit Sub-total:	36.5		

Year II		Credit	Semester		Type [^]
			1st	2nd	
Compulsory Major					
HSCI2000	Cell and Molecular Biology	3	✓		CM
HSCI2001	Cell and Molecular Biology Lab	1.5	✓		CM
HSCI2002	General and Clinical Microbiology	3	✓		CM
HSCI2003	Microbiology Lab	1.5	✓		CM
HSCI2005	Biology of Development and Aging	3		✓	CM
HSCI2006	Physiology and Pathophysiology	3		✓	CM
HSCI3004	Genomics and Bioinformatics	3		✓	CM
HSCI3005	Genetics, Genomics and Bioinformatics Lab	1.5		✓	CM
Languages and Skills					
EELC1003	Academic English	3			LS*
<i>1 Language and Skills course selected from the following:</i>		3			LS*
CHLL1000	University Chinese				
PORT1000	Portuguese Language I - Introductory Portuguese				
General Education					
	1 course from area of Global Awareness	3			GE
	1 course from area of Science & Technology	3			GE
	1 course from area of Literature & Humanities	3			GE
Free Elective		3			FE
		Credit Sub-total:	37.5		

Faculty of Health Sciences
Bachelor of Science in Biomedical Sciences
Curriculum (Major Code: BIO19) (Intensive Plan)

Year III		Credit	Semester		Type [^]
			1st	2nd	
Compulsory Major					
HSCI3000	Neuroscience and Neurodegenerative Diseases	3	✓		CM
HSCI3001	Endocrinology and Metabolic Diseases	3	✓		CM
HSCI3002	Immunology and Infectious Diseases	3	✓		CM
Compulsory Major (Specialization in Medicinal Science)					
HSCI4006	Public Health	3		✓	CM
HSCI4007	Translational Medicine	3		✓	CM
Required Elective (Specialization in Medicinal Science)^{^^}					
HSCI4003	Pharmacology and Chemical Biology	3		✓	RE
HSCI4009	Toxicology	3		✓	RE
Compulsory Major (Specialization in Pharmaceutical Science and Technology)					
HSCI4003	Pharmacology and Chemical Biology	3		✓	CM
HSCI4009	Toxicology	3		✓	CM
Required Elective (Specialization in Pharmaceutical Science and Technology)^{^^}					
HSCI4006	Public Health	3		✓	RE
HSCI4007	Translational Medicine	3		✓	RE
Language and Skills					
CISC1000	Information Technology Fundamentals and Practices	3			LS*
General Education					
GEGA1000	Macao and Chinese Civilization (Area of Global Awareness)	3			GE [#]
GESB1000	Ethics, Values, Law and Society (Area of Society and Behaviour)	3			GE [#]
	1 course from area of Society & Behaviour	3			GE
Free Elective		3			FE
Credit Sub-total:		33-36			

Year IV		Credit	Semester		Type [^]
			1st	2nd	
Compulsory Major					
HSCI4000	Graduation Project I	3	✓		CM
HSCI4005	Graduation Project II	3		✓	CM
Compulsory Major (Specialization in Medicinal Science)					
HSCI4001	Cancer Biology and Therapy	3	✓		CM
HSCI4002	Stem Cell Biology and Regenerative Medicine	3	✓		CM
Required Elective (Specialization in Medicinal Science)^{^^}					
HSCI4004	Drug Discovery and Development	3	✓		RE
HSCI4008	Introduction to Pharmacy and Pharmaceutical Analysis	3	✓		RE
Compulsory Major (Specialization in Pharmaceutical Science and Technology)					
HSCI4004	Drug Discovery and Development	3	✓		CM
HSCI4008	Introduction to Pharmacy and Pharmaceutical Analysis	3	✓		CM
Required Elective (Specialization in Pharmaceutical Science and Technology)^{^^}					
HSCI4001	Cancer Biology and Therapy	3	✓		RE
HSCI4002	Stem Cell Biology and Regenerative Medicine	3	✓		RE
Credit Sub-total:		15-18			

TOTAL CREDITS: 122

Faculty of Health Sciences
Bachelor of Science in Biomedical Sciences
Curriculum (Major Code: BIO19) (Intensive Plan)

^^ List of required elective courses for two specializations

<i>List of Required Elective Course</i>		Credit	Semester		Type [^]
			1st	2nd	
Specialization in Medicinal Science					
<i>2 courses selected from the following:</i>					
HSCI4003	Pharmacology and Chemical Biology	3		✓	RE
HSCI4004	Drug Discovery and Development	3	✓		RE
HSCI4008	Introduction to Pharmacy and Pharmaceutical Analysis	3	✓		RE
HSCI4009	Toxicology	3		✓	RE
Specialization in Pharmaceutical Science and Technology					
<i>2 courses selected from the following:</i>					
HSCI4001	Cancer Biology and Therapy	3	✓		RE
HSCI4002	Stem Cell Biology and Regenerative Medicine	3	✓		RE
HSCI4006	Public Health	3		✓	RE
HSCI4007	Translational Medicine	3		✓	RE

[^] *CM - Compulsory Major*

LS - Languages and Skills

CPE - Community and Peer Education

GE - General Education

RE - Required Elective

FE - Free Elective

* *Students who test out of some or all of the Languages and Skills course(s) are required to make up the credits by taking additional Free Elective(s). Please visit the Registry's website (<https://reg.um.edu.mo/current-students/curriculum-model/ug-curriculum-model/languages-and-skills/>) for more details about the test out criteria.*

Compulsory General Education Course. For visit the Registry's website for details

(<https://reg.um.edu.mo/current-students/curriculum-model/ug-curriculum-model/general-education/2017-2018/framework/>)