

**Bachelor of Science in Biomedical Sciences**

<b>Year I</b>		<b>Credits</b>
<i>Compulsory Major Courses</i>		
HSCI1000	General Chemistry	3
HSCI1001	General Chemistry Lab	2
HSCI1002	Introduction to Biological Sciences	3
HSCI1003	General and Clinical Biochemistry	3
HSCI1004	Biochemistry Lab	1.5
<i>Language and Skills Courses*</i>		
EELC1001	Interactive English I	3
EELC1002	Interactive English II	3
<i>Community and Peer Education Courses</i>		
CPED1000	Residential College Experiential Learning	1
CPED1001	Physical Education I	0.5
CPED1002	Physical Education II	0.5
CPED2000	Communication Skills and Leadership	1
<i>General Education Courses</i>		
GEST1003	Quantitative Reasoning for Health Sciences (Area of Science & Technology)	3
GELH1000	Chinese Language and Culture (Area of Literature & Humanities)	3
<i>Free Elective Course</i>		
	1 Free Elective Course	3
<b>Total Credits:</b>		<b>30.5</b>

<b>Year II</b>		<b>Credits</b>
<i>Compulsory Major Courses</i>		
HSCI2000	Cell and Molecular Biology	3
HSCI2001	Cell and Molecular Biology Lab	1.5
HSCI2002	General and Clinical Microbiology	3
HSCI2003	Microbiology Lab	1.5
HSCI2004	Genetics and Epigenetics	3
HSCI2005	Biology of Development and Aging	3

HSCI2006 Physiology and Pathophysiology 3

*Language and Skills Course\**

EELC1003 Academic English 3

1 Language and Skills course selected from the following: 3

CHLL1000 University Chinese

PORT1000 Introductory Portuguese

*General Education Courses*

1 course from area of Global Awareness 3

1 course from area of Science & Technology 3

1 course from area of Literature & Humanities 3

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**Total Credits:** 33

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**Year III** **Credits**

*Compulsory Major Courses*

HSCI3000 Neuroscience and Neurodegenerative Diseases 3

HSCI3001 Endocrinology and Metabolic Diseases 3

HSCI3002 Immunology and Infectious Diseases 3

HSCI3003 Biostatistics and Experimental Design 3

HSCI3004 Genomics and Bioinformatics 3

HSCI3005 Genetics, Genomics and Bioinformatics Laboratory 1.5

*Language and Skills Course\**

CISC1000 Information Technology Fundamentals and Practices 3

*General Education Courses*

GEA1000 Macao and Chinese Civilization (Area of Global Awareness) 3

GESB1000 Ethics, Values, Law and Society (Area of Society & Behaviour) 3

1 course from area of Society & Behaviour 3

*Free Elective Course*

1 Free Elective Course 3

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**Total Credits:** 31.5

<b>Year IV</b>	<b>Credits</b>
<b><u>Specialization in Medicinal Science</u></b>	
<i>Compulsory Major Courses</i>	
HSCI4000 Graduation Project I	3
HSCI4001 Cancer Biology and Therapy	3
HSCI4002 Stem Cell Biology and Regenerative Medicine	3
HSCI4005 Graduation Project II	3
HSCI4006 Public Health	3
HSCI4007 Translational Medicine	3
 <i>Required Elective Courses</i>	
2 Required Elective Courses selected from the following:	6
HSCI4003 Pharmacology and Chemical Biology	
HSCI4004 Drug Discovery and Development	
HSCI4008 Introduction to Pharmacy and Pharmaceutical Analysis	
HSCI4009 Toxicology	
 <i>Free Elective Course</i>	
1 Free Elective Course	3
 <b><u>Specialization in Pharmaceutical Science and Technology</u></b>	
<i>Compulsory Major Courses</i>	
HSCI4000 Graduation Project I	3
HSCI4003 Pharmacology and Chemical Biology	3
HSCI4004 Drug Discovery and Development	3
HSCI4005 Graduation Project II	3
HSCI4008 Introduction to Pharmacy and Pharmaceutical Analysis	3
HSCI4009 Toxicology	3
 <i>Required Elective Courses</i>	
2 Required Elective Courses selected from the following:	6
HSCI4001 Cancer Biology and Therapy	
HSCI4002 Stem Cell Biology and Regenerative Medicine	
HSCI4006 Public Health	
HSCI4007 Translational Medicine	
 <i>Free Elective Course</i>	
1 Free Elective Course	3
<hr/> <b>Total Credits:</b>	
	<b>27</b>

\*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 REG's webpage

([https://reg.um.edu.mo/current-students/ugmodel/lang\\_skills/](https://reg.um.edu.mo/current-students/ugmodel/lang_skills/)) for more details about the test out criteria.