BIOLOGICAL AND BIOMEDICAL SCIENCES, PHD

The Master of Science and PhD programs in Biological and Biomedical Sciences (BBS) are multidisciplinary graduate programs that aim to train the next generation of leaders in biomedical sciences.

The Master's and PhD degree paths offer students an education that provides them with an advanced level of knowledge – particularly in applied areas of biological and biomedical sciences – and helps them develop critical and independent reasoning skills.

For more information, click here (https://www.hbku.edu.qa/en/chls/phd-biological-biomedical/).

Requirements

Minimum hours required to complete program 60 CH

Code	Title	Hours
Core Courses		
LS 601	Research Methods and Ethics	3
CLS 625	Applied Biostatistics	3
LS 716	Advanced Techniques in Biomedical Sciences	3
Subtotal		9
Elective Courses		
Select three of the following:		9
CLS 600	Techniques in Biochemistry	
CLS 661	Special Topics in Biosensors	
CLS 706	Independent Studies	
CLS 711	Development and Diseases of The Nervous System	
GPM 604	Advanced Genetics	
LS 603	Advanced Molecular Biology	
LS 605	Advanced Cell Biology	
LS 607	Advanced Human Physiology	
LS 708	Advanced Neuroscience	
LS 709	Molecular and Cellular Biology of Neurodegenerative Diseases	
LS 710	Cancer Biology	
LS 712	Cancer Immunology	
LS 713	Behavior, Learning and Memory	
LS 714	Scientific Communication and Professional Development	
LS 715	Physiopathological Mechanisms of Neurogenetic Diseases	
LS 730	Mechanobiology in Health and Disease	
LS 740	Stem Cell Biology	
LS 741	Signal Transduction in Health and Diseases	
LS 742	Advances in Human Metabolism and Disease	
LS 751	Immunology and Immunogenomics	
Subtotal		9
Free Electives		
Can select a maximum of one of the following:		
AIE 633	Islamic Bioethics	
CLS 726	Proteomics in Precision Medicine	
CLS 751	Molecular Mechanisms of Cancer and Their Applications	
CSE 785	Innovation Entrepreneurship and Leadership I	
EPID 700	Introduction to Epidemiology	
EXSC 710	Behavioral Aspects of Physical Activity	
EXSC 731	Mechanisms of Motor Skill Performance	
EXSC 780	Physiology of Exercise	
GPM 602	Clinical Applications in Genomics and Precision Medicine	
GPM 607	Molecular Pathology	
GPM 720	Pharmacogenomics	
GPM 721	Bioinformatics	
GPM 733	Epigenetics	
Seminar		
Must pass twice		
LS 701	Research Seminar	0
Subtotal		0
Dissertation		
LS 890	Dissertation Hours	1-9
Subtotal		42
Non-Course Requirements		
899	Dissertation Defense	0
799	Candidacy Exam	0
790	Qualifying Exam	0
Total Hours		60

Study Plan

First Year		
First Semester		**Hours**
CLS 625	Applied Biostatistics	3
LS 601	Research Methods and Ethics	3
LS 701	Research Seminar	0
Elective 1		3
	Semester Hours	**9**
Second Semester		
LS 701	Research Seminar	0
LS 716	Advanced Techniques in Biomedical Sciences	3
Elective 2		3
Elective 3		3
	Semester Hours	**9**
Second Year		
First Semester		
LS 890	Dissertation Hours	9
	Semester Hours	**9**
Second Semester		
LS 890	Dissertation Hours	9
	Semester Hours	**9**
Third Year		
First Semester		
LS 890	Dissertation Hours	9
	Semester Hours	**9**
Second Semester		
LS 890	Dissertation Hours	9
	Semester Hours	**9**

Fourth Year		
First Semester		
LS 890	Dissertation Hours	6
	Semester Hours	**6**
	Total Hours	**60**