

## Bachelor of Science in Molecular & Medical Genetics

*Study Plan (Effective Spring 21-22)*

Total Credit Hours 131

First Year (Freshman)

### Semester I (FALL)

Code	Title	Crh	Prerequisite(s)
ARL 101 (A)	Communication Skills in Arabic I	3	No Prerequisite
FWS100	Academic Skills for Success	3	No Prerequisite
ENG 200	English II	3	EPT or average score of IELTS 6 or EmSAT average score of 1400 + FWS100(E) FWS100(E) as co-req if placed in ENG200 directly
STT 100	General Statistics	3	No Prerequisite
CHE 205	General Chemistry	3	(Co)ENG 102/ENG 200 + (Co)FWS100
CHE201 L	General Chemistry Lab	1	Co-Req CHE205
<i>Total Credit Hours</i>		<b>16</b>	

### Semester II (SPRING)

Code	Title	Crh	Prerequisite(s)
MTG100	Math for life	3	No Prerequisite
ISL 100 (A)	Islamic Culture	3	No Prerequisite
BIO 205	General Biology	3	(Co)ENG 102/ENG 200 + (Co)FWS100
BIO 205 L	General Biology Lab	1	BIO 205 (Pre / Co-req)
PBH101	Introduction to Public Health	3	Co ENG102/ENG200 + (Co FWS100)
BMS 23110A	Protein Structure & Function	3	CHE 205
<i>Total Credit Hours</i>		<b>16</b>	

## Second Year (Sophomore)

### Semester III (FALL)

Code	Title	Crh	Prerequisite(s)
BMS 23110B	Protein Activity & Regulation	3	BMS 23110A
BMS 23010A	Genome Biology	3	BIO 205
HMG 380	Human Anatomy and Physiology I	3	BIO 205
BMS 23110C	Enzymology	3	BMS 23110A
HSC 205	Biostatistics	3	STT100
BMS 34010A	Biotechniques	3	BIO205 & CHE205
<i>Total Credit Hours</i>		<b>18</b>	

### Semester IV (SPRING)

Code	Title	Crh	Prerequisite(s)
BMS 3470B	Clinical Biochemistry I	3	BMS 34010A
HMG 35110B	Principles of Medical Genetics	3	Co Req BMS 34110B
HSC 210	Epidemiology and Population Health	3	HSC 205
HMG 381	Human Anatomy & Physiology II	3	HMG 380
BMS 23010B	Gene Expression	3	BMS 23010A
BMS 34110B	Metabolic Disease I	3	BMS 23110C
<i>Total Credit Hours</i>		<b>18</b>	

### Summer Semester

Code	Title	Crh	Prerequisite(s)
BMS 3401	Biomedical Science Placement 1	3	Completed 60 credits

## Third Year (Junior)

### Semester V (FALL)

Code	Title	Crh	Prerequisite(s)
FWS 305	Technical Communication for the workplace	3	ENG200 + 45 Credits
HMG 399	Epidemiology and Public Health Genetics	3	HSC 210
BMS 23140A	Metabolism and Immune Cell Function	3	BMS 34110B
BMS 23010C	Molecular Genetic & Molecular Processes	3	BMS 23010B
BMS 34010B	Quantitative Analysis	3	BMS 23010C
BMS 302	Professional Practice Skills	3	BMS 3401
<i>Total Credit Hours</i>		<b>18</b>	

### Semester VI (SPRING)

Code	Title	Crh	Prerequisite(s)
BMS 34110A	Neurobiology I	3	BMS 302
FWS 310	Fundamentals of Innovation and Entrepreneurship	3	ENG 200 + 60 Credits
BMS 34210A	Immunology I	3	BMS 23140A
BMS 34130A	Cancer Biology I	3	BMS 34210A
FWS 205	UAE and GCC Society	3	ENG102 +FWS100(E) or co-req FWS100(E) if placed in ENG200
<i>Total Credit Hours</i>		<b>15</b>	

### Summer Semester

Code	Title	Crh	Prerequisite(s)
BMS 4401	Biomedical Science Placement 2	3	Completed 90 credits

## Fourth Year (Senior)

### Semester VII (FALL)

Code	Title	Crh	Prerequisite(s)
HMG 2201	Introduction to Counselling theory and skills	3	FWS 305
HMG 44910A	Human Genetics Research Poster	1	BMS 4401
HMG 44910B	Human Genetics Oral Presentation	2	BMS 4401
HMG 44110A	Inherited Neurological Disorders	3	BMS 34110A
HMG 442	Inherited Immunodeficiencies	3	BMS 34210A
<i>Total Credit Hours</i>		<b>15</b>	

### Semester VIII (SPRING)

Code	Title	Crh	Prerequisite(s)
BMS 44910C	Human Genetics Research Report	3	BMS 4401
HMG 2301	Medical Genetic Counselling	3	HMG 2201
HMG 44130A	Inherited Cancer Genetics	3	BMS 34130A & HMG442
HMG 34010C	Bioinformatics	3	BMS 4401
<i>Total Credit Hours</i>		<b>9</b>	

