

Bachelor of Science in Molecular & Medical Genetics Study Plan (Effective Fall 22-23)

Total Credits Hours: 131

First Year (Freshman)

Semester I (FALL)

Code	Title	Crh	Prerequisite(s)
ARL 101 (A)	Communication Skills in Arabic I	3	No Prerequisite
FWS 100	Academic Skills for Success	3	No Prerequisite
ENG 200	English II	3	IELTS average score of 6 or EMSAT average score of 1400 or passing grade in ENG 102 R + (FWS100(E)/USS001 (P) as co-requisite if placed in ENG200)
STT 100	General Statistics	3	No Prerequisite
CHE 205	General Chemistry	3	(Co)ENG 102 (R) /ENG 200
CHE 201 L	General Chemistry Lab	1	Co-Req CHE205
<i>Total Credit Hours</i>		16	

Semester II (SPRING)

Code	Title	Crh	Prerequisite(s)
MTG 100	Math for life	3	No Prerequisite
ISL 100 (A)	Islamic Culture	3	No Prerequisite
BIO 205	General Biology	3	(Co)ENG 102 (R) /ENG 200
BIO 205 L	General Biology Lab	1	BIO 205 (Pre / Co-req)
PBH 101	Introduction to Public Health	3	(Co)ENG 102 (R) /ENG 200 + (Co) FWS100
BMS 23110A	Protein Structure & Function	3	CHE 205
<i>Total Credit Hours</i>		16	

Second Year (Sophomore)

Semester III (FALL)

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

Semester IV (SPRING)

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

Third Year (Junior)

Semester V (FALL)

Code	Title	Crh	Prerequisite(s)
FWS 205	UAE and GCC Society	3	ENG102 (R) & FWS100 (E)/ USS001 (P) as pre-requisite + FWS100(E)/ USS001 (P) as co-requisite if students enter to ENG200 course directly
BMS 34010B	Quantitative Analysis	3	BIO 205
BMS 23010C	Molecular Genetic & Molecular Processes	3	BMS 23010B
BMS 302	Professional Practice Skills	3	BMS 34010A
HMG 399	Epidemiology and Public Health Genetics	3	HSC 210
<i>Total Credit Hours</i>		15	

Semester VI (SPRING)

Code	Title	Crh	Prerequisite(s)
FWS 305	Technical Communication for the workplace	3	ENG200 + Completion of 45 Credits
FWS 310	Fundamentals of Innovation and Entrepreneurship	3	ENG 200 + 60 Credits
BMS 34210A	Immunology I	3	BMS 23010C
BMS 34130A	Cancer Biology I	3	BMS 23010C
BMS 34110A	Neurobiology I	3	HMG 381
BMS 34120	Human and Evolutionary Genetics	3	HMG 35110B
<i>Total Credit Hours</i>		18	

Winter Semester (After Semester V)

Code	Title	Crh	Prerequisite(s)
MMG 3401	Molecular and Medical Genetics Placement 1	3	Completion of 70 credits

Winter Semester (After Semester VII)

Code	Title	Crh	Prerequisite(s)
MMG 4401	Molecular and Medical Genetics Placement 2	3	Completion of 102 credits

Fourth Year (Senior)

Semester VII (FALL)

Code	Title	Crh	Prerequisite(s)
HSC 410	Healthcare Research Methodology	3	Completion of 80 credits + HSC 205
HND 228	Introduction to Counselling Theory and Skills	3	ENG200 + Completion of 45 credits
HMG 44110A	Inherited Neurological Disorders	3	BMS 34110A
HMG 442	Inherited Immunodeficiencies	3	BMS 34210A
<i>Total Credit Hours</i>		12	

Semester VIII (SPRING)

Code	Title	Crh	Prerequisite(s)
HMG 44911	Human Genetics Research Report	3	HSC 410
BMS 34010C	Bioinformatics	3	BMS 23010C
HMG 2301	Medical Genetic Counselling	3	HMG 2201
HMG 44130A	Inherited Cancer Genetics	3	BMS 34130A & HMG442
<i>Total Credit Hours</i>		12	

Important Notes:

All major courses are offered in their designated semesters as stated on this study plan.

Do not delay your general education courses to your last year.