

BACHELOR OF SCIENCE (BIOLOGY)

SSCGH 20202021

YEAR 1

SEMESTER 1

Code	Course	Credit	Pre-req
SSCB 1613	Microbiology (+Lab)	3	
SSCG 1112	Introduction to Biomolecules	2	
UHLB 1112	English Communication Skills	2	
SSCM 1023	Mathematical Methods 1	3	
SSCM 1103	Statistics	3	
UHMT 1012	Graduate Success Attributes	2	
UHMS 1182	Appreciation of Ethics and Civilisations (Local)	2	
UHLM 1012	Malay Language Communication 2 (International)		

17 credit

SEMESTER 2

Code	Course	Credit	Pre-req
SSCG 1703	Cellular and Molecular Biology	3	
SSCG 1123	Cellular Biochemistry and Metabolism (+Lab)	3	SSCB 1112
SSCG 1402	Introduction to Biosciences	2	
SSCG 1103	Bioorganic Chemistry	3	
SSCK 1203	Analytical Chemistry for Engineering	3	
SSCK 1891	Analytical Chemistry Practical	1	
UHS 1022	Philosophy and Current Issues (Local)	2	
UHMS 1182	Appreciation and Current Ethics and Civilizations (International) or	2	
UHS 1022	Philosophy and Current Issues (International)		

17 credit

YEAR 2

SEMESTER 1

Code	Course	Credit	Pre-req
SSCG 2713	Genetic Engineering (+Lab)	3	SSCG 1703
SSCG 2633	Mycology	3	SSCB 1613
SSCG 2753	Basic Genetics	3	
UHLB 2122	Academic Communication Skills	2	UHLB 1112
UKQ* 2**2	Co-curriculum and Service Learning	2	
UHL* 1112	Foreign Language	2	

15 credit

SEMESTER 2

Code	Course	Credit	Pre-req
SSCG 2323	Plant Physiology (+Lab)	3	
SSCG 2303	Immunology	3	
SSCG 2803	Enzymology (+Lab)	3	SSCG 1123
SSCG 2423	Bioethics in Research and Development	3	
UHIT 2302	Science and Technology Thinking	2	
U*** 2**2	Elective of Knowledge Enhancement Cluster or Elective of Generic Skills Cluster	2	

16 credit

YEAR 3

SEMESTER 1

SEMESTER 2

Code	Course	Credit	Pre-req
SSCG 3333	Animal Physiology (+Lab)	3	
SSCG 3613	Phycology	3	SSCB 1613
UBSS 1032	Introduction to Entrepreneurship	2	
<i>Elective (Choose 9 credits)</i>			
SSCG 3113	Bioenergetics*	3	SSCG 1123
SSCG 3673	Physiology and Screening of Industrial Microorganisms*	3	SSCB 1613
SSCG 3133	Nutritional Biochemistry	3	
SSCB 3633	Food Microbiology	3	
SSCG 3213	Biological Control and Environmental Conservation	3	

Code	Courses	Credit	Pre-req
SSCG 3603	Virology	3	SSCG 2303
SSCB 3403	Research Methodology	3	
UHLB 3132	Professional Communication Skills	2	UHLB2122
UKQT3001	Extracurricular Experiential Learning	1	
<i>Elective (Choose 9 credits)</i>			
SSCG 3803	Structure and Function of Proteins*	3	
SSCG 3823	Biocomputation and Bioinformatics*	3	
SSCG 3623	Extremophiles	3	
SSCB 3703	Molecular Biotechnology	3	
SSCG 3723	Gene Expression	3	

17 credit

18 credit

Note : *Compulsory Elective Courses

Short Semester

Code	Course	Credit
SSCU 3905	Industrial Training	5 (HW)

Total 5 credit hours

YEAR 4

SEMESTER 1

SEMESTER 2

Code	Courses	Credit	Pre-req
SSCG 4433	Ecology	3	
SSCU 4902	Undergraduate Project I**	2	
<i>Elective (Choose 9 credits)</i>			
SSCG 4713	Genomics and Proteomics*	3	SSCG 2803
SSCB 4813	Protein Separation Techniques in Biotechnology*	3	SSCG 2803
SSCB 4113	Applied Microbial Biochemistry and Biotransformation	3	SSCG 1123
SSCG 4733	Systems Biology	3	
SSCG 4333	Toxicology	3	

Total 14 credit hours

Code	Courses	Credit	Pre-req
SSCG 4703	Cell Signalling	3	SSCG 1123
SSCU 4904	Undergraduate Project II	4	SSCU 4902
<i>Elective (Choose 6 credits)</i>			
SSCG 4803	Structural Biology	3	
SSCG 4743	Synthetic Biology	3	SSCG 2713
SSCG 4723	Gene Therapy	3	SSCG 2803
SSCB 4243	Biosensor Technology (+Lab)	3	

Total 13 credit hours

Note : **Must be 4-th Year Student

Total Credit = 132

