



SCHOOL OF LIFE SCIENCE AND BIOTECHNOLOGY

Department of Biological Sciences

B.Sc. (Hons) in Microbiology

Course Grid -

ADAMAS UNIVERSITY								
DEPARTMENT OF MICROBIOLOGY								
B.Sc. in Microbiology Semester - I								
Type of the Course	Revised course code	Course Name	Contact Hours Per Week	L	T	P	Credit	
CORE Theory	MIB11001	Introduction to Microbiology and Microbial Diversity	4	3	1	0	4	
CORE Practical	MIB12002	Introduction to Microbiology and Microbial Diversity Lab	3	0	0	3	2	
CORE Theory	MIB11003	Biochemistry	4	3	1	0	4	
CORE Practical	MIB12004	Biochemistry Lab	3	0	0	3	2	
AECC I	ENG11057	English Language and Literature	2	1	1	0	2	
FOUNDATION	DGS11001	Design Thinking	2	2	0	0	2	
Generic Elective 1 (GE1) Theory	BOT11001/ZOL11001	Any one of the following: Elective Botany I / Elective Zoology I	4	3	1	0	4	
Generic Elective 1 (GE1) Practical	BOT12002/ ZOL12002	Corresponding Practical (any one): Elective Botany I Lab / Elective Zoology I Lab	3	0	0	3	2	
Total			25	12	4	9	22	

*6 credit course for non lab based subject

ADAMAS UNIVERSITY								
DEPARTMENT OF MICROBIOLOGY								
B.Sc. Microbiology Semester - II								
Type of the Course	Revised course code	Course Name	Contact Hours Per Week	L	T	P	Credit	
CORE Theory	MIB11005	Bacteriology	4	3	1	0	4	

CORE Practical	MIB12006	Bacteriology Lab	3	0	0	3	2
CORE Theory	MIB11007	Virology	4	3	1	0	4
CORE Practical	MIB12008	Virology Lab	3	0	0	3	2
AECC II Theory	EVS11110	Environmental Science and Energy Resources	2	2	0	0	2
FOUNDATION	EIC11001	Venture Ideation	2	2	0	0	2
Generic Elective 2# (GE2*) Theory	BOT11003/ ZOL 11003	Any one of the following: Elective Botany II / Elective Zoology II /	4	3	1	0	4
Generic Elective 2# (GE2*) Practical	BOT12004/ ZOL12004	Corresponding Practical (any one): Elective Botany II Lab / Elective Zoology II Lab	3	0	0	3	2
Total			25	13	3	9	22

*6 credit course for non lab based subject; # same subject to be continued as in semester I

ADAMAS UNIVERSITY DEPARTMENT OF MICROBIOLOGY							
B.Sc. Microbiology Semester - III							
Type of the Course	Revised course code	Course Name	Contact Hours Per Week	L	T	P	Credit
CORE Theory	MIB11009	Cell Biology	4	3	1	0	4
CORE Practical	MIB12010	Cell Biology Lab	3	0	0	3	2
CORE Theory	MIB11011	Microbial Genetics	4	3	1	0	4
CORE Practical	MIB12012	Microbial Genetics Lab	3	0	0	3	2
CORE Theory	MIB11013	Environmental Microbiology	4	3	1	0	4
CORE Practical	MIB12014	Environmental Microbiology Lab	3	0	0	3	2
FOUNDATION Skill Enhancement Course I	MIB11015/ MIB11016	Microbial Quality Control in Food and Pharmaceutical Industries / Food Fermentation Techniques	2	0	0	0	2

(SEC I) Theory							
FOUNDATION	SOC14100	Community Service	-	-	-	-	1
FOUNDATION	IDP14001	Interdisciplinary Project	3	0	0	3	3
Generic Elective 3 [#] (GE3*) Theory	PHY11015/ CSE11641/ CHM11151/ SDS11506	Any one of the following: Elective Physics I / Elective Computer Science I / Elective Chemistry I / Elective Statistics I* /	4	3	1	0	4
Generic Elective 3 [#] (GE3*) Practical	PHY12016/ CSE12642/ CHM12152	Corresponding Practical (any one): Elective Physics I Lab/ Elective Computer Science I Lab/ Elective Chemistry I Lab/	3	0	0	3	2
Total			33	12	4	15	30

*6 credit course for non lab based subject

ADAMAS UNIVERSITY DEPARTMENT OF MICROBIOLOGY							
B.Sc. Microbiology Semester - IV							
	Revised course code	Course Name	Contact Hours Per Week	L	T	P	Credit
CORE Theory	MIB11017	Molecular Biology	4	3	1	0	4
CORE Practical	MIB12018	Molecular Biology Lab	3	0	0	3	2
CORE Theory	MIB11019	Immunology	4	3	1	0	4
CORE Practical	MIB12020	Immunology Lab	3	0	0	3	2
CORE Theory	MIB11021	Microbial Physiology and Metabolism	4	3	1	0	4
CORE Practical	MIB12022	Microbial Physiology and Metabolism Lab	3	0	0	3	2
FOUNDATION Skill Enhancement Course II (SEC II) Theory	MIB11023/ MIB11024	Any one of the following: Microbial Diagnosis in Health Clinics /	2	2	0	0	2

		Management of Human Microbial Diseases					
FOUNDATION	PSG11021	Human Values and Professional Ethics	2	2	0	0	2
Generic Elective 4* (GE4*) Theory	PHY11024/CSE11643/CHM11153/ SDS11507	Any one of the following: Elective Physics II / Elective Computer Science II / Elective Chemistry II / Elective Statistics II* /	4	3	1	0	4
Generic Elective 4* (GE4*) Practical	PHY12025/CSE12644/CHM12154	Corresponding Practical (any one): Elective Physics II Lab/ Elective Computer Science II Lab/ Elective Chemistry II Lab/	3	0	0	3	2
Total			32	16	4	12	28

*6 credit course for non lab based subject; # same subject to be continued as in semester III

ADAMAS UNIVERSITY DEPARTMENT OF MICROBIOLOGY							
B.Sc. Microbiology Semester - V							
Type of Course	Revised course code	Course Name	Contact Hours Per Week	L	T	P	Credit
CORE Theory	MIB11025	Food and Dairy Microbiology	4	3	1	0	4
CORE Practical	MIB12026	Food and Dairy Microbiology Lab	3	0	0	3	2
CORE Theory	MIB11027	Recombinant DNA Technology	4	3	1	0	4
CORE Practical	MIB12028	Recombinant DNA Technology Lab	3	0	0	3	2
CORE Discipline Specific Elective I (DSE I) Theory	MIB11029/ MIB11030/ MIB11031	Any one of the following: Bioinformatics / Biomathematics and Biostatistics/ Plant Pathology	4	3	1	0	4

CORE Discipline Specific Elective I (DSE I) Practical	MIB12032/ MIB12033/ MIB12034	Corresponding Practical (any one): Bioinformatics Lab / Biomathematics and Biostatistics Lab/ Plant Pathology Lab	3	0	0	3	2
CORE Discipline Specific Elective II (DSE II) Theory	MIB11035/ MIB11037 MIB11036/	Any one of the following: Microbial Biotechnology/ Advances in Microbiology/ Inheritance Biology	4	3	1	0	4
CORE Discipline Specific Elective II (DSE II) Practical	MIB12038/ MIB12040 MIB12039/	Corresponding Practical (any one): Microbial Biotechnology Lab/ Advances in Microbiology Lab/Inheritance Biology Lab	3	0	0	3	2
FOUNDATION	MIB14041	Industry Internship					2
Total			28	12	4	12	26

*6 credit course for non-lab based subject.

Note: Offer of DSE courses may vary from year to year based on availability of faculty

ADAMAS UNIVERSITY DEPARTMENT OF MICROBIOLOGY							
B.Sc. Microbiology Semester - VI							
Type of the course	Revised course code	Course Name	Contact Hours Per Week	L	T	P	Credit
CORE Theory	MIB11042	Medical Microbiology	4	3	1	0	4
CORE Practical	MIB12043	Medical Microbiology Lab	3	0	0	3	2
CORE Theory	MIB11044	Industrial Microbiology	4	3	1	0	4
CORE Practical	MIB12045	Industrial Microbiology Lab	3	0	0	3	2

CORE Discipline Specific Elective III (DSE III) Theory	MIB11046/ MIB11047	Any one of the following: Microbial Physiology / Biosafety and Intellectual Property Rights* /	4	3	1	0	4
CORE Discipline Specific Elective III (DSE III) Practical	MIB12048	Corresponding Practical (any one): Microbial Physiology Lab	3	0	0	3	2
	MIB15049	Dissertation	6	0	0	6	6
FOUNDATION (any one)	MIB15050/ MIB14051	Seminar on Contemporary Research in Microbiology/ Educational tour	2	2			2
Total			29	11	3	15	26