

Course Work BS Microbiology

S.No	Semester	Course Title	Course Code	Credit Hours
1.	1 st	English-1	MB – 311	3 (3,0)
2.		Pakistan Studies	MB – 312	2 (2,0)
3.		Fundamentals of Microbiology – I	MB – 313	4 (3,1)
4.		Biodiversity of Animals	MB – 314	3 (2,1)
5.		Mathematics – I	MB – 315	3 (3,0)
6.		General Chemistry	MB – 316	3 (2,1)
Total Credit Hours				18 (15,3)
7.	2 nd	English-II	MB – 321	3 (3,0)
8.		Islamic Studies	MB – 322	2 (2,0)
9.		Fundamentals of Microbiology – II	MB – 323	4 (3,1)
10.		General Genetics	MB – 324	3 (2,1)
11.		Mathematics – II	MB – 325	3 (3,0)
12.		Biochemistry	MB – 326	3 (2,1)
Total Credit Hours				18 (15,3)
13.	3 rd	Biostatistics	MB – 431	3 (2,1)
14.		Sociology	MB – 432	3 (3,0)
15.		Computer Applications	MB – 433	3 (2,1)
16.		Ecology & Ecosystem	MB – 434	3 (2,1)
17.		Cell Biology	MB – 435	3 (2,1)
18.		Microbial Taxonomy	MB – 436	3 (2,1)
Total Credit Hours				18 (13,5)
19.	4 th	Biodiversity of Plants	MB – 441	3 (2,1)
20.		Environmental Current Issues	MB – 442	3 (2,1)
21.		General Virology	MB – 443	4(3,1)
22.		Biotechnology	MB – 444	3 (2,1)
23.		Mycology	MB – 445	4 (3,1)
Total Credit Hours				17 (12,5)
24.	5 th	Microbial Metabolism	MB – 551	3 (2,1)
25.		Biosafety & Risk Management	MB – 552	3 (3,0)
26.		Microbial Genetics	MB – 553	4 (3,1)
27.		Soil Microbiology	MB – 554	3 (2,1)
28.		Medical Microbiology	MB – 555	3 (2,1)
Total Credit Hours				16 (12,4)
29.	6 th	Research Methodology & Literature Review	MB – 561	3 (2,1)
30.		Molecular Microbiology	MB – 562	4 (3,1)

31.		Medical Virology	MB – 563	3 (2,1)
32.		General Immunology	MB – 564	3 (2,1)
33.		Microbial Physiology	MB – 565	3 (2,1)
Total Credit Hours				16 (11, 5)
34.	7 th	Food Microbiology	MB – 671	3 (2,1)
35.		Clinical Bacteriology	MB – 672	4 (3,1)
36.		Genetic Engineering	MB – 673	3 (3,0)
37.		Cell & Tissue Culture Technology	MB – 674	3 (2,1)
38.		Mini Research Project	MB – 675	3 (0,3)
		OR		
39.		Internship	MB – 676	0+3
Total Credit Hours				16 Research (10,6) Internship (10+6)
40.	8 th	Immunobiology	MB – 681	3 (2,1)
41.		Epidemiology, Public Health and Bioethics	MB – 682	3 (2,1)
42.		Bioinformatics	MB – 683	3 (2,1)
43.		Environmental Microbiology	MB – 684	4(3,1)
44.		Veterinary Microbiology (Optional Subject With Internship)	MB – 685	3 (3,0)
45.		Mini Research Project		3(0,3)
Total Credit Hours				16 Internship (12+4) Research (9+7)
Overall Credit Hours				135 Internship (100+35) Research (97+38)