

Course Offering  
Semester: Spring 2019  
**Program: BS Bioinformatics/ BioSciences/ BioTech/ MicroBio**

S.#	Code	Course Title	Status	Section	Pre-Req.	Co-Req.	Semester	Remarks
1.	BI1113	Cell Biology	Core	1	Nil	Nil	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
2.	BI1111	Cell Biology Lab	Core	2	Nil	BI1113	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology.
3.	CSBS1133	Introduction to Programming	Required	1	Nil	Nil	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
4.	CSBS1131	Introduction to Programming Lab	Required	2	Nil	CSBI1133	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
5.	HMBS1002	Pakistan Studies	Humanity	1	Nil	Nil	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
6.	HMBS1013	English-I	English	1	Nil	Nil	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
7.	MTBI1003	Basic Mathematics	Required	1	Nil	Nil	1	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology.
8.	MTBS1013	Calculus-I	Required	1	MTBI1003	Nil	2	Shared Bioinformatics/ Biosciences/ Biotech/ Microbiology
9.	BI2213	Chemistry	Required	2	Nil	Nil	2	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
10.	HMBS1023	English-II	English	1	HMBI1013	Nil	2	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
11.	HMBS1012	Islamic Studies / Ethics	Humanity	1	Nil	Nil	2	Shared with Bioinformatics/ Biosciences/ Biotech/ Microbiology
12.	BI2423	Molecular Genetics	Core	3	BI1113	Nil	2	Share with Bioinformatics and Biosciences Biotechnology and Microbiology

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13.	BI2421	Molecular Genetics Lab	Core	5	BI1113	Nil	2	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
14.	BI1143	Introduction to Microbiology	Core	2	BI1113	Nil	2	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
15.	BI1141	Introduction to Microbiology Lab	Core	4	Nil	Nil	2	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
16.	CS1143	Object Oriented Programming	Required	1	CSBI1133	Nil	3	Shared with Bioinformatics/ CS
17.	CS1141	Object Oriented Programming Lab	Required	1	CSBI1131	CSBI2133	3	Shared with Bioinformatics/ CS
18.	BI1143	Introduction to Microbiology	Core	2	Nil	Nil	3	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
19.	BI1141	Introduction to Microbiology Lab	Core	4	BI1113	Nil	3	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
20.	BI2423	Molecular Genetics	Core	3	BI1113	Nil	3	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
21.	BI2421	Molecular Genetics Lab	Core	5	BI1113	Nil	3	Share with Bioinformatics and Biosciences Biotechnology and Microbiology
22.	BI2213	Chemistry	Required	2	BI1133	Nil	3	Share with Bioinformatics and Biosciences, Biotechnology and Microbiology
23.	HMBS2033	Technical Report Writing	English	2	HMBI1013	Nil	3	Shared with Bioinformatics/ Biosciences/Biotechnology and Microbiology
24.	HMBS2113	Major World Religion	Humanity	2	Nil	Nil	3	Shared with Biosciences/Biotechnology and Microbiology
25.	BI2423	Molecular Genetics	Core	3	Nil	Nil	4	Shared with Biosciences/Biotechnology and Microbiology
26.	BI2421	Molecular Genetics Lab	Core	5	Nil	Nil	4	Shared with Biosciences/Biotechnology and Microbiology
27.	CS2143	Data Structures	Core	1	CSBI1133	Nil	4	Shared with CS and Bioinformatics
28.	CS2141	Data Structures Lab	Core	1	CSBI1131	CSBI2143	4	Shared with CS and Bioinformatics
29.	BI3513	Protein Chemistry	Required	1	Nil	Nil	4	Shared with Biosciences/Biotechnology and

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								Microbiology
30.	BI3813	Introduction to Biotechnology	Required	1	Nil	Nil	4	Shared with Biosciences/Biotechnology and Microbiology
31.	MB2323	Microbial Ecology	Elective	1	Nil	Nil	4	Shared with Biosciences/Biotechnology and Microbiology
32.	BI4453	Genetic Engineering Elective-III	Elective	1	Nil	Nil	4	Shared with Biosciences/Biotechnology and Microbiology
33.	MTC1033	Linear Algebra	Required	1	MTBI1023	Nil	5	Share with Bioinformatics/CS
34.	MB2323	Microbial Ecology Elective-I	Elective	1	BI1113	Nil	5	Share with Biosciences and Bioinformatics
35.	BS3193	Biosystematics and Classification	Core	1	BI1113	Nil	5	Share with Biosciences and Biosciences
36.	BI3163	Comparative Anatomy	Core	1	Nil	Nil	5	Shared with Bioinformatics/ Biosciences
37.	BI3813	Introduction to Biotechnology	Core	1	Nil	Nil	5	Shared with Bioinformatics/ Biosciences
38.	BI4453	Genetic Engineering Elective-III	Elective	1	Nil	Nil	5	Shared with Bioinformatics/ Biosciences
39.	HMBS2113	Major World religions Humanities-II	Humanity	2	Nil	Nil	5	Shared with Bioinformatics/Biosciences
40.	CS2313	Introduction to Database Systems	Required	1	Nil	Nil	5	Shared with Bioinformatics and CS
41.	CS2311	Introduction to Database Systems Lab	Required	1	Nil	Nil	5	Shared with Bioinformatics CS.
42.	BS3193	Biosystematics and Classification	Core	1	Nil	Nil	6	Shared with Bioinformatics/ Biosciences
43.	BI3823	Bioethics and Biosafety	Core	1	Nil	Nil	6	Shared with Bioinformatics/ Biosciences
44.	MB2323	Microbial Ecology Elective-I	Elective	1	BI2421	Nil	6	Shared with Bioinformatics/ Biosciences
45.	BI3343	Public Health and Environment Elective-II	Elective	1	BI1113	Nil	6	Shared with Bioinformatics/ Biosciences
46.	BI4453	Genetic Engineering Elective-III	Elective	1	BI1113	Nil	6	Shared with Bioinformatics/ Biosciences
47.	BI3163	Comparative Anatomy	Elective	1	BI1113	Nil	7	Shared with Bioinformatics/ Biosciences
48.	BI3823	Bio-ethics and Bio-safety	Elective	1	BI1113	Nil	7	Shared with Bioinformatics/ Biosciences

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49.	BI3343	Public Health and Environment Elective-II	Elective	1	BI1113	Nil	7	Share with Biosciences
50.	HMBS2113	Major World Religions Humanities II	Elective	2	BI1113	Nil	7	Share with Biosciences/Bioinformatics
51.	ACBS2003	Accounting-I	Elective	1	BI1113	Nil	7	Share with Biosciences/Bioinformatics
52.	BI4912	Project (Part-I)	Required	1	Nil	Nil	7	Shared with BI/ Biosciences
53.	BI3823	Bio-ethics and Bio-safety	Elective	1	BI1113	Nil	8	Shared with Bioinformatics/Biosciences
54.	B3343	Public Health and Environment Elective-II	Elective	1	BI1113	Nil	8	Shared with Bioinformatics/ Biosciences
55.	ACBS2003	Principle of Accounting I	Required	1	Nil	Nil	8	Shared with Bioinformatics/ Biosciences
56.	BI4924	Project (Part-II)	Required	1	BI4912	Nil	8	Shared with Bioinformatics/ Biosciences
57.	BI5753	Advanced Bioinformatics	Core	1	Nil	Nil	Any	Shared MS Bioinformatics/ MS Biosciences
58.	BI5193	Advanced Microbiology and Immunology	Core	1	Nil	Nil	Any	Core for MS Biosciences and elective for MS Bioinformatics
59.	BI5623	Advanced Medicinal Plants Elective-I	Elective	1	Nil	Nil	Any	Shared MS Bioinformatics/ MS Biosciences
60.	BI5423	Advanced Medical Genetics Elective-II	Elective	1	Nil	Nil	Any	Shared MS Bioinformatics/ MS Biosciences