Course Structure for M.Sc. Biotechnology (2 Years) Total Credits-88

ADAMAS UNIVERSITY							
DEPARTMENT OF BIOTECHNOLOGY – M.Sc. PROGRAM SEMESTER - I (Course Code: BIT)							
Type of the Paper	Paper Code	Theory / Practical	Contact Hours Per Week	L	T	P	Credit
CORE	BIT21580	Theory Biomolecules and Biomolecular Interactions	3	3	0	0	3
CORE	BIT21502	Theory Biophysical Chemistry & Bioanalytical Techniques	3	3	0	0	3
CORE	BIT21590	Theory Applied Microbiology	3	3	0	0	3
CORE	BIT21504	Theory Molecular Genetics	3	3	0	0	3
CORE	BIT21581	Theory Ecology and Evolution	3	3	0	0	3
CORE	BIT21536	Bio-Ethics and Intellectual Property Rights	3	3	0	0	3
CORE	BIT22582	Practical Biophysical Chemistry & Bioanalytical Techniques Lab	4	0	0	4	2
CORE	BIT22531	Practical Applied Microbiology and Molecular Genetics Lab	4	0	0	4	2
Practical	BIT22533	Professional Development course-1 (PDC-1)	2	0	0	1	1
Total			28	18	0	9	23

ADAMAS UNIVERSITY							
DEPARTMENT OF BIOTECHNOLOGY – M.Sc. PROGRAM SEMESTER - II							
Type of thePaper	**Paper Code**	**Theory / Practical**	**Contact Hours Per Week**	**L**	**T**	**P**	**Credit**
CORE	**BIT21509**	**Theory** **Molecular Biology**	**3**	**3**	**0**	**0**	**3**
CORE	**BIT21510**	**Theory** **Advanced Recombinant DNA Technology**	**3**	**3**	**0**	**0**	**3**
CORE	**BIT21591**	**Theory** **Applied Genomics and Proteomics**	**3**	**3**	**0**	**0**	**3**
CORE	**BIT21585**	**Theory** **Bioinformatics and Biostatistics**	**3**	**3**	**0**	**0**	**3**
CORE	**BIT22586**	**Practical** **Molecular Biology and Recombinant DNA Technology Lab**	**4**	**0**	**0**	**4**	**2**
CORE	**BIT22532**	**Practical** **Applied Genomics and Proteomics Lab**	**4**	**0**	**0**	**4**	**2**
CORE	**BIT22516**	**Practical** **Bioinformatics Lab**	**4**	**0**	**0**	**4**	**2**
Core Elective (Discipline Specific)I	**BIT21517/ BIT21518/ BIT21520/ BIT21521**	**Cancer Biology (BIT21517)/Human Physiology (BIT21518)/Food and Dairy: Food Safety and Quality Control (BIT21520)/ Drug Design and Drug Development (BIT21521)** **Theory** **SELECT ONE TOPIC**	**3**	**3**	**0**	**0**	**3**
Practical	**BIT22534**	**Professional Development course-2 (PDC-2)**	**2**	**0**	**0**	**1**	**1**
Total			**29**	**15**	**0**	**13**	**22**

ADAMAS UNIVERSITY							
DEPARTMENT OF BIOTECHNOLOGY – M.Sc. PROGRAM SEMESTER - III							
Type of the Paper	Paper Code	Theory / Practical	Contact Hours Per Week	L	T	P	Credit
CORE	BIT21588	**Theory** **Immunotechnology**	3	3	0	0	3
CORE	BIT21522	**Theory** **Plant and Agricultural Biotechnology**	3	3	0	0	3
CORE	BIT21524	**Theory** **Animal Biotechnology**	3	3	0	0	3
CORE	BIT21525	**Theory** **Process Biotechnology**	3	3	0	0	3
Core Elective (Discipline Specific)II	**BIT21589**/ **BIT21533**/ **BIT21534**/ **BIT21535**	**Nanobiotechnology (BIT21589)/ Advances in Stem Cell Research (BIT21533)/Pharmaceutical Biotechnology (BIT21534)/Research Methodology and GLP (BIT21535)**	3	3	0	0	3
CORE	BIT22590	**Practical** **Plant and Animal Biotechnology Lab**	4	0	0	4	2
CORE	BIT22591	**Practical** **Immunotechnology Lab**	4	0	0	4	2
CORE	BIT22529	**Practical** **Process Biotechnology Lab**	4	0	0	4	2
FOUNDATION	BIT24530	**Industry Internship***	-	-	-	-	2
Practical	**BIT22535**	**Professional Development course-3 (PDC-3)**	**2**	**0**	**0**	**1**	**1**
Total			**29**	**15**	**0**	**13**	**24**

*Industry Internship – the student will go for an internship between 2nd and 3rd semester.

ADAMAS UNIVERSITY							
DEPARTMENT OF BIOTECHNOLOGY – M.Sc. PROGRAM SEMESTER - **IV**							
Type of the Paper	**Paper Code**	**Theory / Practical**	**Contact Hours Per Week**	**L**	**T**	**P**	**Credit**
CORE	**BIT25540**	**Comprehensive Viva**	-	-	-	-	**4**
CORE	**BIT25541**	**Project Work and Viva**	30	0	0	30	15
Total			**30**	**0**	**0**	**30**	**19**

CORE ELECTIVE I (DSE) (Choose any one paper in Sem II) *		CORE ELECTIVE II (DSE) (Choose any one paper in Sem III) *	
1	Cancer Biology **(BIT21517)**	1	**Nanobiotechnology (BIT21589)**
2	Human Physiology **(BIT21518)**	2	Advances in Stem Cell Research **(BIT21533)**
3	Food and Dairy: Food Safety and Quality Control **(BIT21520)**	3	Pharmaceutical Biotechnology **(BIT21534)**
4	Drug Design and Drug Development **(BIT21521)**	4	Research Methodology and GLP **(BIT21535)**

 * Offering of subjects will vary from year to year, subject to the availability of faculty Total Credits- 88

Semester	I	II	III	IV	Total Credits
Credits	23	22	24	19	88

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