

Faculty of Life Science & Technology

Study and Evaluation Scheme

Of

Master of Science in Biotechnology

M.Sc. (Biotech)

(Applicable w.e.f Academic Session 2020-22 till revised)



AKS UNIVERSITY, SATNA

Study and Evaluation Scheme

**** The University Authorities reserve all the rights to make any additions/ deletions or changes/ modifications to this syllabus as deemed necessary.**

M.Sc- Biotechnology

Semester – I

S.No.	Subject Code	Subject	Subject area	Periods			Credit
				L	T	P	
1	52BT101	Cell Structure & Dynamics	DCC	4	-	-	4
2	52BT102	Microbial Technology	DCC	3	-	-	3
3	52CH103	Advanced Biochemistry	DCC	3	-	-	3
4	52CA104	Biostatistics & Computer Application	DCC	3	-	-	3
5	52BT106	Molecular Biology	DCC	3	-	-	3
6	52BT107	Bioanalytical Tools and Techniques	DCC	3	-	-	3
1	52BT153	Bioanalytical Techniques & Biochemistry (Lab 1)	-	-	-	6	3
2	52BT154	Applied Microbiology & Molecular Biology (Lab 2)	-	-	-	6	3
TOTAL				19	-	12	25

M.Sc- Biotechnology**Semester – II**

S.No.	Subject Code	Subject	Subject area	Periods			Credit
				L	T	P	
1	52BT201	Immunology	DCC	4	-	-	4
2	52BT206	Plant Biotechnology	DCC	3	1	-	4
3	52BT207	Stem Cell and Tissue Engineering	DCC	3	1	-	4
4	52CA205	Industrial Microbiology	DCC	3	1	-	4
5	52BT208	Animal Biotechnology	DCC	3	-	-	3
6	52BT209	Computational Biology & Bioinformatics	DCC	3	-	-	3
1	52BT253	Plant Biotechnology & Industrial Microbiology (Lab 1)	-	-	-	6	3
2	52BT254	Immunology, Animal Biotechnology & Bioinformatics (Lab 2)	-	-	-	6	3
TOTAL				19	3	12	28

M.Sc- Biotechnology

Semester – III

S.No.	Subject Code	Subject	Subject area	Periods			Credit
				L	T	P	
1	52BT301	Environmental Biotechnology	DCC	3	-	-	3
2	52BT302	Genetic Engineering & Bionanotechnology	DCC	3	1	-	4
3	52BT307	Agriculture Biotechnology	DCC	3	-	-	3
4	52BT308	Scientific Writing and patenting process	DCC	3	1	-	4
5		Elective 1 (Group A/B/C)	DCC	3	-	-	3
6		Elective 2 (Group A/B/C)	DCC	3	-	-	3
8	52BT353	Agriculture Biotechnology & Elective (Lab 1)	-	-	-	6	3
9	52BT352	Genetic Engineering & Environmental Biotechnology (Lab 2)	-	-	-	6	3
TOTAL				18	2	12	26

List of Elective Papers

Sr.no.	Sub. Code	Subject Name
Group-A: Industrial Biotechnology		
1	52BT304-A	Design and Operation of Bioreactors
2	52BT305-A	Down Stream Processing
Group-B: Pharmaceutical Biotechnology		
1	52BT304-B	Pharmaceutical Biotechnology
2	52BT305-B	Vaccine Biotechnology and Drug Action
Group-C: Bioinformatics		
1	52BT304-C	Molecular Modelling and Drug Designing
2	52BT305-C	Bioprogramming and Soft Computing Techniques

Note: Student can choose only one group of the above and study both the subjects of the group.

M.Sc- Biotechnology

Semester – IV

S.No.	Subject Code	Subject	Subject area	Periods			Credit
				L	T	P	
1	52BT451	6 Months Project work/ Dissertation	DCC	-	-	30	15
TOTAL						30	15