

Symbiosis School of Biological Sciences, Pune
Master of Science (Biotechnology)
Programme Structure 2019-21

1.	OBJECTIVE	To nurture, cultivate, promote biological scientists and create an ecosystem for innovation that enables development of technologies of social relevance.			
2.	DURATION (IN MONTHS)	24 (Full Time)			
3.	INTAKE	30			
4.	RESERVATION	I. Within the sanctioned intake	a) SC (In Percentage)	b) ST (In Percentage)	c) Differently abled (In Percentage)
			15	7.5	3
		II. Over and above the sanctioned intake	a) Kashmiri Migrants (In Seats)	b) International Students (In Percentage)	
			2	15	
5.	ELIGIBILITY	Graduate in Life Sciences from any recognised University/ Institution of National Importance with a minimum of 50% marks or equivalent grade (45% marks or equivalent grade for Scheduled Caste/ Scheduled Tribes).			
6.	SELECTION PROCEDURE	Personal Interaction			
7.	MEDIUM OF INSTRUCTION	English			
8.	PROGRAMME PATTERN	Semester			
9.	COURSE & SPECIALIZATION	As per Annexure A			
10.	FEE		Academic Fee p.a	Institute Deposit	Total
		Indian Students	200000	20000	220000
		International Students (USD equivalent to INR)	300000	20000	320000
11.	ASSESSMENT	All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 60% internal component and 40% component as external (University) examination.			
12.	STANDARD OF PASSING	The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (Outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum CGPA of 4 out of maximum of 10 CGPA for the programme.			

13. AWARD OF DEGREE	Master of Science (Biotechnology) will be awarded at the end of semester IV examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.						
14. NATURE WISE DISTRIBUTION OF CREDITS							
Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	20	0	0	0	0	0	20
2	20	0	0	0	0	1*	20
3	17	3	0	0	0	0	20
4	20	0	0	0	0	0	20
Total	77	3	0	0	0	0	80

* Satisfactory completion of the letter grade course 'Integrated Disaster Management' is mandatory for award of degree.

Programme Structure is approved by the Academic Council subject to its norms & conditions. Any provision in the Programme Structure which violates the basic rules & regulations is deemed to be termed "Null & Void".

Head-Academics

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Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Credits	External Credits	Total Marks
Semester : 1							
Generic Core Courses							
T4716	040342101	Microbiology		4	120	80	200
T4717	040342102	Genetics and Molecular Biology		4	120	80	200
T4718	040342103	Biochemistry		4	120	80	200
T4719	040342104	Practical: Microbiology, Biochemistry and Immunodiagnosics		4	120	80	200
T4720	040342105	Practical: Molecular Biology		4	120	80	200
Total				20	600	400	1000
Semester : 2							
Generic Core Courses							
T4721	040342201	Recombinant DNA Technology		3	90	60	150
T4722	040342202	Cell Biology		3	90	60	150
T4723	040342203	Practical: Recombinant DNA Technology		3	90	60	150
T4724	040342204	Practical - Animal Tissue Culture		3	90	60	150
T4726	040342205	Biostatistics		3	90	60	150
T4727	040342206	Genomics, Proteomics and Bioinformatics		3	90	60	150
T4725	040342207	Research Methodology		2	60	40	100
T4005	040342208	Integrated Disaster Management *		0	0	0	Letter Grade
Total				20	600	400	1000
Semester : 3							
Generic Core Courses							
T4728	040342301	Virology and Vaccinology		4	120	80	200
T4733	040342302	Molecular Immunology		4	120	80	200
T4734	040342303	Practical: Emerging Technology		4	120	80	200
T4729	040342304	Intellectual Property Rights		3	90	60	150
T4732	040342305	Environmental Biotechnology		2	60	40	100
Total				17	510	340	850
Generic Elective Courses Group							
T4730	040342306	Clinical Biochemistry		3	90	60	150
T4731	040342307	Bioprocess Engineering		3	90	60	150
Total Required Credits				3	90	60	150
Semester : 4							
Generic Core Courses							
T4820	040342401	Project Work		20	600	400	1000
Total				20	600	400	1000

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Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester1	0	20	20	1000
Semester2	0	20	20	1000
Semester3	0	20	20	1000
Semester4	0	20	20	1000
Total	0	80	80	4000