

Symbiosis School of Biological Sciences, Pune
Master of Science (Biotechnology)
Programme Structure 2018-20

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			
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 maxim						
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							25
2	25	0	0	0	0	0	25
3	21	4	0	0	0	0	25
4	0	25	0	0	0	0	25
Total	71	29	0	0	0	0	100

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

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 Marks	External Marks	Total Marks
Semester : 1							
Generic Core Courses							
T4192	040342101	Microbiology		5	150	100	250
T4193	040342102	Practical: Microbiology, Biochemistry and Immunodiagnostics		5	150	100	250
T4194	040342103	Genetics and Molecular Biology		5	150	100	250
T4195	040342104	Practical: Molecular Biology		5	150	100	250
T4196	040342105	Biochemistry		5	150	100	250
Total				25	750	500	1250
Semester : 2							
Generic Core Courses							
T4197	040342201	Recombinant DNA Technology & Bioinformatics		5	150	100	250
T4198	040342202	Practical: Recombinant DNA Technology		5	150	100	250
T4199	040342203	Cell Biology		5	150	100	250
T4200	040342204	Practical: Animal Tissue Culture		5	150	100	250
T4419	040342205	Research Methodology and Biostatistics		5	150	100	250
T4005	040342206	Integrated Disaster Management *					Letter Grade
Total				25	750	500	1250
Semester : 3							
Generic Core Courses							
T4368	040342301	Virology and Vaccinology		5	150	100	250
T4703	040342302	Intellectual Property Rights		3	90	60	150
T4689	040342303	Environmental Biotechnology		3	90	60	150
T4421	040342304	Practical: Emerging Technologies		5	150	100	250
T4207	040342305	Molecular Immunology		5	150	100	250
Total				21	630	420	1050
Generic Elective Courses Group							
T4687	040342306	Bioprocess Engineering		4	120	80	200
T4688	040342307	Clinical Biochemistry		4	120	80	200
Total Required Credits				4	120	80	200
Semester : 4							
Project or Bioinformatics							
Generic Elective Courses							
T4801	040342401	Project Work		25	750	500	1250
Generic Elective Courses							
T4422	040342402	Project in Bioinformatics		13	390	260	650
T4423	040342403	Introduction to Bioinformatics		3	90	60	150
T4424	040342404	Programming for Chemical and Life Sciences Informatics		3	90	60	150
T4425	040342405	Introduction to Biological Database Management		3	90	60	150
T4426	040342406	Statistical Methods in Bioinformatics		3	90	60	150
Total Required Credits				25	750	500	1250

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Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester 1	0	25	25	1250
Semester 2	0	25	25	1250
Semester 3	0	25	25	1250
Semester 4	0	25	25	1250
Total	0	100	100	5000