Symbiosis Statistical Institute, Pune
Master of Science (Applied Statistics)
Programme Structure 2024-26

1.	OBJECTIVE	To Provide a sound foundation and exposure to statistical ideas.To steer students towards developing a keen interest in statistical thinking.To instill the rational that Statistics is important for scientific research which forms the basic grounds of decision making in every aspect of life.			
2.	DURATION (IN MONTHS)	24 (Full Time)			
3.	INTAKE	60			
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	20	
5.	ELIGIBILITY	Graduate in Statistics/ Mathematics at principal or subsidiary level from any recognised University/ Institution of National Importance with minimum of 50% marks or equivalent grade (45% marks or equivalent grade for Scheduled Caste/ Scheduled Tribes).			
6.	SELECTION PROCEDURE	Selection of students is based on: 1. Academic record with minimum 50 percent (45% for SC/ST) at graduation level 2. Performance at the "Writing Aptitude Test (Technical and Academic)" (WAT) and Personal Interaction (PI) which will be conducted in Kolkata, Noida and Pune. WAT is a written test that will be scheduled along with a comprehensive Personal Interaction (PI). 3. Technical and Academic Writing Test - Essay type written test on a general topic to comprehend the writing skills of the candidate. Personal Interaction - Interaction with a panel of experts			
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 (Amount in INR)		253000	20000	273000
	International Students	NRI/ PIO/ OCI Category (Amount in US$)	4850	275	5125

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		Foreign National Category (Amount in US$)	1950	275	2225
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% external component [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 (Applied Statistics) will be awarded at the end of semester 4 examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA			

14. CLASSIFICATION OF CREDITS

Semester	Generic Core	Generic Elective	Specializa-tion Core	Specializa-tion Elective	Open Elective	Mandatory Non-Credit Course/s	Non-Letter Grade Audit Course/s	Total
Common								
1	21	0	0	0	0	0	As per the student's choice	21
2	23	0	0	0	0	2		23
3	15	3	6	0	0	0		24
4	12	0	0	0	0	0		12
Total	**71**	**3**	**6**	**0**	**0**	**0**		**80**

This Programme Structure is aligned with the norms laid down by the University and is approved by the Academic Council.
Hereafter changes (if any) which conform to the policy on "Curriculum Development and Review" would be permissible, subject to revision of the Programme Structure, following the specified processes.

Director - Academics

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Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Continuous Assessment	Term End Examination	Total Marks
Semester : 1							
Generic Core Courses							
T6684	0606410101	Probability Distributions		4	120	80	200
T6695	0606410102	Probability Theory and Applications		4	120	80	200
T6687	0606410103	Sampling Theory		4	120	80	200
T6688	0606410104	Statistical Computing		4	120	80	200
T6699	0606410105	Multivariate Statistics-1		3	90	60	150
T4725	0606410106	Research Methodology		2	60	40	100
			Total	**21**	**630**	**420**	**1050**
Semester : 2							
Generic Core Courses							
T6700	0606410201	Design of Experiments		4	120	80	200
T6696	0606410202	Linear Models		4	120	80	200
T6701	0606410203	Multivariate Statistical Analysis-2		4	120	80	200
T6697	0606410204	Statistical Inference		4	120	80	200
T6698	0606410205	Stochastic Processes		4	120	80	200
T6725	0606410206	Time Series Analysis		3	90	60	150
TH4788	0606410207	Health and Wellness Module I		0	0	0	Mandatory Non-Credit Course
TH4789	0606410208	Health and Wellness Module II		0	0	0	Mandatory Non-Credit Course
			Total	**23**	**690**	**460**	**1150**
Semester : 3							
Generic Core Courses							
T6703	0606410301	Statistical Learning and Data Mining		4	120	80	200
T6702	0606410302	Computer Intensive Statistical Methods		4	120	80	200
T6706	0606410303	Statistical Machine Learning		4	120	80	200
T6903	0606410304	Internship		3	150	0	150
			Total	**15**	**510**	**240**	**750**
Generic Elective Course Group (Choose any one course)							
F0003	0606410305	Flexi-Credit Course		3	150	0	150
F0003	0606410306	Flexi-Credit Course		3	150	0	150

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Catalog Course Code	Course Code	Course Title	Specialization	Credit	Continuous Assessment	Term End Examination	Total Marks
Total Required Credits				**3**	**150**	**0**	**150**
Specialization Core Courses : Bio-Statistics and Data Analysis							
T6724	0606410307	Survival Analysis	Bio-Statistics and Data Analysis	3	90	60	150
T6707	0606410308	Demography and Vital Statistics	Bio-Statistics and Data Analysis	3	90	60	150
Total				**6**	**180**	**120**	**300**
Specialization Core Courses : Data Science							
T6705	0606410309	Statistical Simulation	Data Science	3	90	60	150
T6849	0606410310	Big Data Analytics	Data Science	3	90	60	150
Total				**6**	**180**	**120**	**300**
Specialization Core Courses : Industrial Statistics and Operations Research							
T6852	0606410311	Stochastic Models in Finance	Industrial Statistics and Operations Research	3	90	60	150
T6851	0606410312	Statistical Quality Control	Industrial Statistics and Operations Research	3	90	60	150
Total				**6**	**180**	**120**	**300**
Specialization Core Courses : Actuarial Statistics							
T6724	0606410307	Survival Analysis	Actuarial Statistics	3	90	60	150
T6848	0606410313	Actuarial Mathematics	Actuarial Statistics	3	90	60	150
Total				**6**	**180**	**120**	**300**
Semester : 4							
Generic Core Courses							
T6810	0606410401	Industry Project in Specialization		10	300	200	500
T6802	0606410402	Seminar		2	100	0	100
Total				**12**	**400**	**200**	**600**

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Semester	Continuous Assessment	Term End Examination	Total Credits	Total Marks
Semester 1	0	21	21	1050
Semester 2	0	23	23	1150
Semester 3	6	18	24	1200
Semester 4	2	10	12	600
Total	**8**	**72**	**80**	**4000**