



Symbiosis Institute of Computer Studies and Research, Pune
Master of Science (System Security)
Programme Structure 2020-22

1.	OBJECTIVE	Government IT projects and Corporates are on alert to amplify and elevate their infrastructure and data security due to threats from hackers and cyber-terrorists. In this view, the customers have increased the requirements of security procedures dramatically. With the growing demand of data and cyber security, we are aiming to develop the workforce with skill set to satisfy the need of this rapidly expanding, dynamic field. The programme will cover various aspect of security such as Network Security, Information Security, Regulations and compliances.			
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 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	Symbiosis National Aptitude Test, Group Exercise, Personal Interaction and Writing Ability Test (GE-PIWAT)			
7.	MEDIUM OF INSTRUCTION	English			
8.	PROGRAMME PATTERN	Semester			
9.	COURSE & SPECIALIZATION	Attached as Annexure A			
10.	FEE		Academic Fee p.a	Institute Deposit	Total
		Indian Students	210000	20000	230000
		International Students (USD equivalent to INR)	315000	20000	335000
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/ DIPLOMA/ CERTIFICATE	Master of Science (System Security) will be awarded at the end of 4th semester examination by taking into consideration the performance of all 4 semester's examinations after obtaining minimum 4.00 CGPA out of 10.00 CGPA.					
14.	NATURE WISE DISTRIBUTION OF CREDITS						
Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	18	4	0	0	0	0	22
2	23	4	0	0	0	1*	27
3	11	4	0	0	0	1*	15
4	16	0	0	0	0	0	16
Total	68	12	0	0	0	0	80
* Satisfactory completion of the non letter- grade courses 'Integrated Disaster Management' and 'Research Publication' 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 Marks	External Marks	Total Marks
Semester : 1							
Generic Core Courses							
T3575	0301430101	Software Engineering (Agile Practices)		4	120	80	200
T3017	0301430102	Python Programming		3	90	60	150
T3555	0301430103	Operating System Fundamentals		3	90	60	150
T3545	0301430104	Fundamentals of Computer Networking		3	90	60	150
T3537	0301430105	Scripting Language		3	90	60	150
T2225	0301430106	Research Methodology		2	60	40	100
Total				18	540	360	900
Choose Any One Group							
Generic Elective Courses							
T3620	0301430107	File System Forensics		2	60	40	100
T3643	0301430108	Introduction-Legal evidences		2	60	40	100
Generic Elective Courses							
T3617	0301430109	Security Standards		2	60	40	100
T3618	0301430110	IT Audit and Risk Management		2	60	40	100
Generic Elective Courses							
T3619	0301430111	Web Application Security		2	60	40	100
T3645	0301430112	secure software engineering		2	60	40	100
Total Required Credits				4	120	80	200
Semester : 2							
Generic Core Courses							
T3022	0301430201	Cryptography		3	90	60	150
T3279	0301430202	Database Administration - I		3	90	60	150
T3423	0301430203	Linux Server Essentials		3	90	60	150
T3015	0301430204	Network Programming		3	90	60	150
T3426	0301430205	Windows Server Essentials		3	90	60	150
T3621	0301430206	Security Policy Program and Development		3	90	60	150
T3644	0301430207	Incident and Disaster Management		3	90	60	150
T3701	0301430208	Dissertation		2	100	0	100
T4005	0301430209	Integrated Disaster Management *		0	0	0	Non Letter Grade
Total				23	730	420	1150
Choose Any One Group							
Generic Elective Courses							
F0002	0301430210	Flexi-Credit Course		2	100	0	100
T3622	0301430211	Mobile Forensics		2	60	40	100
T3623	0301430212	Network Forensics		2	60	40	100
Generic Elective Courses							
T3624	0301430213	Mobile Applications Penetration Testing		2	60	40	100
T3625	0301430214	Network Security Testing		2	60	40	100
F0002	0301430215	Flexi-Credit Course		2	100	0	100
Generic Elective Courses							
F0002	0301430216	Flexi-Credit Course		2	100	0	100
T3626	0301430217	Mobile Security and Audit		2	60	40	100
T3627	0301430218	Network Security Auditing		2	60	40	100
Total Required Credits				4	160	40	200
Semester : 3							
Generic Core Courses							
T3628	0301430301	Enterprise Security Architecture		4	120	80	200
T3540	0301430302	Identity and Access Management		3	90	60	150
T1232	0301430303	Cyber Laws		2	60	40	100
T3802	0301430304	Pilot Project		2	100	0	100
T0100	0301430305	Research Publication *		0	0	0	Non Letter Grade



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Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
Total				11	370	180	550
Choose Any One Group							
Generic Elective Courses							
T3629	0301430306	IoT Forensics		2	60	40	100
T3630	0301430307	Cloud Forensics		2	60	40	100
F0002	0301430308	Flexi-Credit Course		2	100	0	100
Generic Elective Courses							
T3631	0301430309	Cloud Penetration Testing		2	60	40	100
T3632	0301430310	IoT Penetration Testing		2	60	40	100
F0002	0301430311	Flexi-Credit Course		2	100	0	100
Generic Elective Courses							
T3633	0301430312	Cloud Security and Audit		2	60	40	100
T3634	0301430313	Database Security and Audit		2	60	40	100
F0002	0301430314	Flexi-Credit Course		2	100	0	100
Total Required Credits				4	120	80	200
Semester : 4							
Generic Core Courses							
T3916	0301430401	Industry Internship		16	480	320	800
Total				16	480	320	800



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Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester1	0	22	22	1100
Semester2	4	23	27	1350
Semester3	4	11	15	750
Semester4	0	16	16	800
Total	8	72	80	4000