

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2019-21**

1.	<b>OBJECTIVE</b>	-To generate competent manpower in the emerging areas of Computer Aided Design and Manufacturing Technology. -To inculcate among the students an aptitude for engineering and research for the furthering of knowledge in the chosen field.			
2.	<b>DURATION (IN MONTHS)</b>	24 (Full Time)			
3.	<b>INTAKE</b>	18			
4.	<b>RESERVATION</b>	<b>I. Within the sanctioned intake</b>	<b>a) SC (In Percentage)</b>	<b>b) ST (In Percentage)</b>	<b>c) Differently abled (In Percentage)</b>
			15	7.5	3
		<b>II. Over and above the sanctioned intake</b>	<b>a) Kashmiri Migrants (In Seats)</b>	<b>b) International Students (In Percentage)</b>	
			2	15	
5.	<b>ELIGIBILITY</b>	Engineering graduate (B.E. /B. Tech) 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) in the discipline of Mechanical /Production/ Industrial/ Automobile/ Aeronautical or equivalent.			
6.	<b>SELECTION PROCEDURE</b>	GATE score or Entrance Test for non-GATE candidates			
7.	<b>MEDIUM OF INSTRUCTION</b>	English			
8.	<b>PROGRAMME PATTERN</b>	Semester			
9.	<b>COURSE &amp; SPECIALIZATION</b>	As per Annexure A			
10.	<b>FEE</b>		<b>Academic Fee p.a</b>	<b>Institute Deposit</b>	<b>Total</b>
		<b>Indian Students</b>	185000	20000	205000
		<b>International Students (USD equivalent to INR)</b>	280000	20000	300000
11.	<b>ASSESSMENT</b>	All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 40% internal component and 60% component as external [University] examination.			
12.	<b>STANDARD OF PASSING</b>	The assessment of students 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 10					
13.	<b>AWARD OF DEGREE</b>	Master of Technology (Computer Aided Design and Manufacture) 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.	<b>NATURE WISE DISTRIBUTION OF CREDITS</b>						
Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	21	3	0	0	0	0	24
2	25	3	0	0	0	1*	28
3	14	0	0	0	0	0	14
4	14	0	0	0	0	0	14
<b>Total</b>	<b>74</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>

\* 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

THIS IS SYSTEM GENERATED DOCUMENT AND REQUIRES NO SIGNATURE.

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2019-21**

**Annexure A**

Catalog Course Code	Course Code	Course Title	Specialization	Credits	Internal Marks	External Mark	Internal Practical Marks	External Practical Marks	Total Marks
<b>Semester : 1</b>									
<b>Generic Core Courses</b>									
T7126	070142101	Computer Aided Production, Planning & Control		4	120	80	0	0	200
T7671	070142102	Seminar		4	0	0	120	80	200
TE7137	070142103	Computational Methods and Optimization		4	120	80	0	0	200
T7927	070142104	Computer Aided Design		3	90	60	0	0	150
T7667	070142105	Computer Aided Design Lab		2	0	0	60	40	100
T7674	070142106	Cyber Security		2	100	0	0	0	100
TE7138	070142107	Computational Methods and Optimization Lab		1	0	0	30	20	50
TE7139	070142108	Communication Skills Lab		1	0	0	30	20	50
<b>Total</b>				<b>21</b>	<b>430</b>	<b>220</b>	<b>240</b>	<b>160</b>	<b>1050</b>
<b>Generic Elective Courses Group</b>									
TE7140	070142109	Advanced Stress Analysis		3	90	60	0	0	150
TE7141	070142110	Systems Modelling and Control		3	90	60	0	0	150
<b>Total Required Credits</b>				<b>3</b>	<b>90</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>150</b>
<b>Semester : 2</b>									
<b>Generic Core Courses</b>									
T7115	070142201	Advanced Computational Fluid Dynamics		4	120	80	0	0	200
T7117	070142202	Advanced Finite Element Method		4	120	80	0	0	200
T2208	070142203	Research Methodology		4	120	80	0	0	200
F0003	070142204	Flexi-Credit Course		3	150	0	0	0	150
TE7142	070142205	Computer Aided Manufacturing		3	90	60	0	0	150
TE7143	070142206	Advanced Finite Element Method Lab		2	0	0	60	40	100
TE7144	070142207	Advanced Computational Fluid Dynamics Lab		2	0	0	60	40	100
T7125	070142208	Computer Aided Manufacturing Lab		1	0	0	30	20	50
F0001	070142209	Flexi-Credit Course		1	50	0	0	0	50
TE7145	070142210	Technical Writing Lab		1	0	0	30	20	50
T4005	070142211	Integrated Disaster Management *		0	0	0	0	0	Letter Grade
<b>Total</b>				<b>25</b>	<b>650</b>	<b>300</b>	<b>180</b>	<b>120</b>	<b>1250</b>
<b>Generic Elective Courses Group</b>									
TE7146	070142212	Advanced Industrial Automation & Robotics		3	90	60	0	0	150
T7127	070142213	Emerging Concepts & Techniques in Manufacturing Management		3	90	60	0	0	150
<b>Total Required Credits</b>				<b>3</b>	<b>90</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>150</b>
<b>Semester : 3</b>									
<b>Generic Core Courses</b>									
TE7710	070142301	Dissertation Phase 1		10	300	200	0	0	500
F0003	070142302	Flexi-Credit Course		3	150	0	0	0	150

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2019-21**

**Annexure A**

Catalog Course Code	Course Code	Course Title	Specialization	Credits	Internal Marks	External Mark	Internal Practical Marks	External Practical Marks	Total Marks
F0001	070142303	Flexi-Credit Course		1	50	0	0	0	50
<b>Total</b>				<b>14</b>	<b>500</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>700</b>
<b>Semester : 4</b>									
<b>Generic Core Courses</b>									
TE7714	070142401	Dissertation Phase 2		14	420	280	0	0	700
<b>Total</b>				<b>14</b>	<b>420</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>700</b>

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2019-21**

Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester 1	2	22	24	1200
Semester 2	4	24	28	1400
Semester 3	4	10	14	700
Semester 4	0	14	14	700
<b>Total</b>	<b>10</b>	<b>70</b>	<b>80</b>	<b>4000</b>