

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2018-20**

1.	<b>OBJECTIVE</b>	<ul style="list-style-type: none"> <li>To generate competent manpower in the emerging areas of Computer Aided Design and Manufacturing Technology.</li> <li>To inculcate among the students an aptitude for engineering and research for the furthering of knowledge in the chosen field.</li> </ul>			
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			

		minimumCGPAof4outof10					
<b>13. AWARD OF DEGREE</b>		MasterofTechnology(ComputerAidedDesignandManufacture)willbeawardedattheendofsemesterIVexaminationbytakingintoconsiderationtheperformanceofallsemesterexaminationsafterobtainingminimum4.00CGPAoutof10CGPA.					
<b>14. NATURE WISE DISTRIBUTION OF CREDITS</b>							
Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	24	3	0	0	0	0	27
2	25	3	0	0	0	1*	28
3	20	0	0	0	0	0	20
4	25	0	0	0	0	0	25
<b>Total</b>	<b>94</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>
*Satisfactorycompletionofthelettergradecourse'IntegratedDisasterManagement'ismandatoryforawardof 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

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2018-20**

**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>									
T7135	070142101	Computer Graphics and Data Structures		3	60	90	0	0	150
T7100	070142102	Mechatronics		4	80	120	0	0	200
T7004	070142103	Advanced Numerical Methods in Engineering		3	60	90	0	0	150
T7126	070142104	Computer Aided Production, Planning & Control		4	80	120	0	0	200
T7927	070142105	Computer Aided Design		3	60	90	0	0	150
T7136	070142106	Computer Graphics and Data Structures Lab		1	0	0	20	30	50
T7101	070142107	Mechatronics Lab		1	0	0	20	30	50
T7005	070142108	Advanced Numerical Methods in Engineering Lab		1	0	0	20	30	50
T7667	070142109	Computer Aided Design Lab		2	0	0	40	60	100
T7674	070142110	Cyber Security		2	100	0	0	0	100
<b>Total</b>				<b>24</b>	<b>440</b>	<b>510</b>	<b>100</b>	<b>150</b>	<b>1200</b>
<b>Generic Elective Courses Group</b>									
T7121	070142111	Advanced Mechanical System Design		3	60	90	0	0	150
T7128	070142112	Engineering Optimization Technique		3	60	90	0	0	150
T7130	070142113	Product Design and Development		3	60	90	0	0	150
<b>Total Required Credits</b>				<b>3</b>	<b>60</b>	<b>90</b>	<b>0</b>	<b>0</b>	<b>150</b>
<b>Semester : 2</b>									
<b>Generic Core Courses</b>									
T7124	070142201	Computer Aided Manufacturing		4	80	120	0	0	200
T7026	070142202	Research Methodology in Engineering		3	60	90	0	0	150
T7117	070142203	Advanced Finite Element Method		4	80	120	0	0	200
T7119	070142204	Advanced Industrial Automation & Robotics		4	80	120	0	0	200
T7115	070142205	Advanced Computational Fluid Dynamics		4	80	120	0	0	200
T7127	070142206	Emerging Concepts & Techniques in Manufacturing Management		3	60	90	0	0	150

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2018-20**

**Annexure A**

Catalog Course Code	Course Code	Course Title	Specialization	Credits	Internal Marks	External Mark	Internal Practical Marks	External Practical Marks	Total Marks
T7125	070142210	Computer Aided Manufacturing Lab		1	0	0	20	30	50
T7118	070142211	Advanced Finite Element Method Lab		1	0	0	20	30	50
T7116	070142212	Advanced Computational Fluid Dynamics Lab		1	0	0	20	30	50
T4005	070142213	Integrated Disaster Management *							Letter Grade
<b>Total</b>				<b>25</b>	<b>440</b>	<b>660</b>	<b>60</b>	<b>90</b>	<b>1250</b>
<b>Generic Elective Courses Group</b>									
T7120	070142207	Advanced Materials		3	60	90	0	0	150
T7521	070142208	Artificial Intelligence and Neural Networks		3	60	90	0	0	150
T7129	070142209	Fracture and Failure Analysis		3	60	90	0	0	150
<b>Total Required Credits</b>				<b>3</b>	<b>60</b>	<b>90</b>	<b>0</b>	<b>0</b>	<b>150</b>
<b>Semester : 3</b>									
<b>Generic Core Courses</b>									
T7809	070142301	M.Tech Project		9	180	270	0	0	450
T7675	070142302	Review of Literature		8	160	240	0	0	400
T7677	070142303	Technical Writing and Seminars		3	60	90	0	0	150
<b>Total</b>				<b>20</b>	<b>400</b>	<b>600</b>	<b>0</b>	<b>0</b>	<b>1000</b>
<b>Semester : 4</b>									
<b>Generic Core Courses</b>									
T7851	070142401	Thesis		25	500	750	0	0	1250
<b>Total</b>				<b>25</b>	<b>500</b>	<b>750</b>	<b>0</b>	<b>0</b>	<b>1250</b>

**Symbiosis Institute of Technology, Pune**  
**Master of Technology (Computer Aided Design & Manufacture)**  
**Programme Structure 2018-20**

Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester 1	2	25	27	1350
Semester 2	0	28	28	1400
Semester 3	0	20	20	1000
Semester 4	0	25	25	1250
<b>Total</b>	<b>2</b>	<b>98</b>	<b>100</b>	<b>5000</b>