



Symbiosis Skills and Open University

B.Tech - Mechatronics Engineering
(Bachelor of Technology- Mechatronics Engineering)

Programme Structure

2018-19

Symbiosis Skills and Open University													
School of Mechatronics Engineering													
Course Structure of B. Tech(Mechatronics Engineering)- Semester-I													
Semester-I													
S.No	Subject Code	Subject Name	Hours						Credits				
			C	L	T	P	S	H	L	T	P	S	C
1	APSC101	Applied Mathematics I	4	1	1	2	1	5	1	1	1	1	4
2	APSC102	Applied physics	4	2	0	2	1	5	2	0	1	1	4
3	ENGG104	Applied Thermodynamics	4	2	0	2	1	5	2	0	1	1	4
4	ENGG102	Computer Programming	3	1	0	2	1	4	1	0	1	1	3
5	ENGG103	Engineering Mechanics	4	2	0	2	1	5	2	0	1	1	4
6	ENGG105	Basics of Electrical and Electronics	3	1	0	2	1	4	1	0	1	1	3
7	IDCS101	IDSC-I	3	0	0	0	3	3	0	0	0	3	3
8	IEVS100	Environmental Studies	3	2			1		2			1	3
				11	1	12	10	31	11	1	6	10	28
Semester-II													
Sr No	Subject Code	Subject Name	Hours						Credits				
			C	CL	T	P	S	H	L	T	P	S	C
1	APSC104	Applied Mathematics II	4	1	1	2	1	5	1	1	1	1	4
2	APSC103	Applied chemistry	4	2	0	2	1	5	2	0	1	1	4
3	ENGG101	Engineering Drawing	4	0	0	2	3	5	0	0	1	3	4
4	ENGG107	Strength of Materials	3	1	0	2	1	4	1	0	1	1	3
5	ENGG106	Material Science and Engineering	4	2	0	2	1	5	2	0	1	1	4
6	MTRX101	Mechatronics Engineering Fundamentals	3	1	0	2	1	4	1	0	1	1	3
7	ENGG108	Workshop Practice (Lab)	3	0	0	2	2	4	0	0	1	2	3
8	IDSC102	IDSC-2(life coping skill)	3	0	0	0	3	3	0	0	0	3	3
9		Internship	8										8
				7	1	14	13	35	7	1	7	13	36

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Semester-III													
Sr No	Subject Code	Subject Name		Hours					Credits				
				C	CL	T	P	S	H	L	T	P	S
1	APSC201	Applied Mathematics III	4	1	1	2	1	5	1	1	1	1	4
2	MTRX201	Analog and Digital Electronics	4	2	0	2	1	5	2	0	1	1	4
3	AUTO201	Theory of Mechanism	3	1	0	2	1	4	1	0	1	1	3
4	AUTO202	Manufacturing Technology	3	1	0	2	1	4	1	0	1	1	3
5	MTRX204	Electronic Measurement and Instrumentation	4	2	0	2	1	5	2	0	1	1	4
6	ENGG204	Fluid Mechanics	3	1	0	2	1	4	1	0	1	1	3
7	MTRX202	Matlab and Simulink	3	0	0	2	2	4	0	0	1	2	3
8	IDSC201	IDSC-3(life coping skill)	3	0	0	0	3	3	0	0	0	3	3
				8	1	14	11	34	8	1	7	11	27
Semester-IV													
Sr No	Subject Code	Subject Name		Hours					Credits				
				C	CL	T	P	S	H	L	T	P	S
1	MTRX203	Control Engineering	4	2	0	2	1	5	2	0	1	1	4
2	ENGG202	Computer Aided Design	4	1	1	2	1	5	1	1	1	1	4
3	AUTO203	Dynamics of Machinery	4	1	1	2	1	5	1	1	1	1	4
4	MTRX205	Microprocessor and Applications	4	1	1	2	1	5	1	1	1	1	4
5	MTRX206	Digital Signal Processing	4	2	0	2	1	5	2	0	1	1	4
6	ENGG201	Heat and Mass transfer	4	1	1	2	1	5	1	1	1	1	4
7	IDSC202	IDSC-4(life coping skill)	3	0	0	0	3	3	0	0	0	3	3
		Internship	8										
				8	4	12	9	33	8	4	6	9	35

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Semester-V													
Sr No	Subject Code	Subject Name	Hours						Credits				
			C	CL	T	P	S	H	L	T	P	S	C
1	MTRX301	Industrial Robotics	4	1	1	2	1	5	1	1	1	1	4
2	MTRX302	Communication Systems	4	2	0	2	1	5	2	0	1	1	4
3	ENGG301	Reliability Engineering	4	1	1	2	1	5	1	1	1	1	4
4	MTRX303	Power Electronics and Drives	4	2	0	2	1	5	2	0	1	1	4
5	MTRX304	Internet of Things	4	1	1	2	1	5	1	1	1	1	4
6	MTRX305/06/07	Elective-I 1. Process Automation 2. Automotive Electronics 3. Computer Integrated Manufacturing	4	1	1	2	1	5	1	1	1	1	4
7	IDSC301	IDSC-5(life coping skill)	3	0	0	0	3	3	0	0	0	3	3
	Audit Corse	Disaster Management											
				8	4	12	9	33	8	4	6	9	27
Semester-VI													
Sr No	Subject Code	Subject Name	Hours						Credits				
			C	CL	T	P	S	H	L	T	P	S	C
1	MTRX308	Industrial Automation	4	1	1	2	1	5	1	1	1	1	4
2	MTRX309	Mechatronics System Design	4	2	0	2	1	5	2	0	1	1	4
3	MTRX310	Digital Hardware Design and Analysis	4	1	1	2	1	5	1	1	1	1	4
4	MTRX311	Product Development	4	2	0	2	1	5	2	0	1	1	4
5	MTRX312/13/14	Elective-II	4	1	1	2	1	5	1	1	1	1	4

		1. Mechatronics in Medical Applications 2. Hybrid and Electric Vehicle 3. Rapid Prototyping											
6	MTRX315/16/17	Elective-III 1. Renewable Energy System 2. Building Automation 3. Total Quality Management	4	1	1	2	1	5	1	1	1	1	4
7	IDSC302	IDSC-6(life coping skill)	3	0	0	0	3	3	0	0	0	3	3
		Internship	8										
				8	4	12	9	33	8	4	6	9	35

Elective -1

1. Process Automation
2. Automotive Electronics
3. Computer Integrated Manufacturing

Elective -2

1. Mechatronics in Medical Applications
2. Hybrid and Electric Vehicle
3. Rapid Prototyping

Elective -3

3. Renewable Energy System
4. Building Automation
5. Total Quality Management

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Semester-VII														
Sr No	Subject Code	Subject Name	C	Hours						Credits				
				CL	T	P	S	H	L	T	P	S	C	
1	MTRX401	Internship	13											
2	MTRX402	Seminar	2											
										5	10			15
Semester-VIII														
Sr No	Subject Code	Subject Name	C	Hours						Credits				
				CL	T	P	S	H	L	T	P	S	C	
1	MTRX403	Project	13											
2	MTRX404	Seminar	2											
										5	10			15

Now with IDSC of 3 Credits
28+36+27+35+27+35+15+15 =218