# Department of Mechanical Engineering School of Engineering & Technology Sharda University, Greater Noida

#### **Minutes of BOS Meeting**

Date: 01<sup>st</sup> June, 2018

- 1. External members of BOS suggested that the following courses should be included as departmental electives:
  - a. Elevator Engineering (3-0-0)3
  - b. Six-sigma practices (3-0-0)3.
  - c. Internet of Things (IoT) (3-0-0)3
- 2. The course of Material Science and Metrology (3-0-0)3 may be split into two separate courses, Material Science (2-0-0)2 and Metrology (0-0-2)1.
- 3. The external experts were of the opinion that the students after completion of 1<sup>st</sup> and 2<sup>nd</sup> year studies may not be ready to go for proper industry internship since they may not be able to derive the intended benefits. Also, the industries may not be willing to accommodate students for internship at their premature stage. It was suggested that instead of industry internship alone, we could have a bucket containing industry internship, training in industry relevant skills, etc., of at least 4 weeks duration.
- 4. Some suggestion for Project based learning were also given. These included:
  - a. Design and Fabrication of Experiments for teaching lab.
  - b. Small industry related projects.
- 5. It was recommended that instead of 2D CAD lab in the 1<sup>st</sup> term, a 3D software should be included so that training should not be on Auto-CAD 2D but on software such as Solid Works. However some experience in reading 2D drawing and imagining their 3D shapes is highly desirable.

Meeting ended with vote of thanks to the chair.

#### Programs wise changes in BOS 2018:

- The total credits of programs B.Tech Mechanical Engineering, B.Tech Mechanical Engineering + M.Tech, B.Tech Mechanical Engineering + MBA, B.Tech Mechanical Engineering with specialization in Automobile Engineering and B.Tech Mechanical Engineering with specialization in Automobile Engineering + M.Tech are reduced to 160 credits for the 2018-2022 curriculum as presented in the Annexure.
- 2. The new program B.Tech Mechanical Engineering with specialization in Mechatronics has been introduced in 2018-2019 academic year as presented in the Annexure.
- 3. No changes in the curriculum of programs B.Tech Mechanical Engineering with specialization in Production and Industrial Engineering and B.Tech Mechanical Engineering with specialization in Aerospace Engineering as presented in the Annexure.
- 4. No much changes in the curriculum of programs M.Tech Mechanical Engineering with specialization in Production and Industrial Engineering, M.Tech Mechanical Engineering with specialization in Machine Design and B.Tech Mechanical Engineering with specialization in Fluid and Thermal Engineering as presented in the Annexure.

# **Propsed list of Member of BOS Department of Mechanical Engineering** School of Engineering and Technology SHARDA UNIVERSITY

Date: 01/June/2018

	rnal Members	Sign
I.	<b>Dr. D.V. Singh</b> Ex-Director, IIT-Roorkee	Hiling
II.	<b>Dr. Sudipto Mukherjee</b> Department of Mechanical Engineering, IIT-Delhi	. 1 -1
III.	Mr. A.N. Seshadri Vice Presidant, Perkins, Gurugrame	of which we
2 Inter	mal Members	
I.	<b>Prof. Bhim Singh</b> HoD, Department of ME, Sharda University	Gunn
II.	<b>Prof. Vijay Gupta</b> Distinguished Professor, Department of ME, Sharda University	Vn
III.	Dr. Ananda Babu Associate Professor, Department of ME, Sharda University	maylerle
IV.	<b>Dr. Vineet Kumar</b> Assistant Professor, Department of ME, Sharda University	Uneck
V	Mr. R.S.Ojha Assistant Professor, Department of ME, Sharda University	Pophe
VI	<b>Mr. A.K. Sehgal</b> Assistant Professor, Department of ME, Sharda University	ev LT.
VII.	Mr. Shibamay Mitra Assistant Professor, Department of ME, Sharda University	Jan.
VIII.	<b>Mr. Francis John</b> Assistant Professor, Department of ME, Sharda University	front
IX.	Ms. Akanksha Mishra Assistant Professor, Department of ME, Sharda University	12-
X.	Ms. Saigeeta Priyadarshini Assistant Professor, Department of ME, Sharda University	Geograp.
XI.	Mr. Gomish Sharma Assistant Professor, Department of ME, Sharda University	Thomas
	Mr. Nitesh Kumar Assistant Professor, Department of ME, Sharda University	Alm

Prof. Bhim Singh . HOD-ME

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### School of Engineering and Technology B.Tech - Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: I

S.	Paper	Subject	Subjects	Т	eaching	Load		Pre-Requisite/Co	
No.	ID	Code				Р	Credits	Requisite	
THEC	ORY SUBJ	ECTS							
1.		CSE114	Programming for Problem Solving	3	0	0	3	-	
2.		HMM111	Human Values and Ethics	2	0	0	2	-	
3.		MTH141	Calculus, Analysis and Linear Algebra	3	1	0	4	-	
4.		PHY120	Engineering Physics	2	1	0	3	-	
5.		EEE112	Principles of Electrical and Electronics Engineering	2	1	0	3	-	
Practi	cal/Viva-V	oce/Jury						·	
6.		MEP107	Introduction to Mechanical Engineering	0	0	2	1	-	
7.		CSP113	Programming for Problem Solving Lab	0	0	2	1	-	
8.		PHY151	Engineering Physics Lab	0	0	2	1		
9.		MEP106	Computer Aided Design & Drafting Lab	0	0	3	1.5	-	
10.		EEP112	Principles of Electrical and Electronics Engineering Lab	0	0	2	1	-	
11.		FEP101 / FEP103	Functional English-Beginners 1 Lab/ Intermediate	0	0	4	2		
		-	TOTAL CREDITS	•			22.5	-	



# School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: II

S.	Paper	Course	Course		eaching	Load		Pre-Requisite/Co
No.	ID	Code		L	Т	Р	Credits	Requisite
THE	DRY SUBJ	ECTS						
1.		CSE114	Application based Programming in Python	3	0	0	3	
2.		MTH144	Differential Equations, Special Transforms And Statistic	3	1	0	4	
3.		PHY119	Advanced Physics (Bucket Based)	2	1	0	3	
4.		CHY111	Engineering Chemistry	3	0	0	3	
5.		EVS103	Environmental Science	2	0	0	2	
Practi	ical/Viva-V	oce/Jury					1	1
6.		CEP114	Application based Programming in Python Lab	0	0	2	1	
7.			Advanced Physics (Bucket Based) Lab	0	0	2	1	
8.		CHP111	Engineering Chemistry Lab	0	0	2	1	
9.		MEP105	Mechanical Workshop	0	0	3	1.5	-
10.		FEP102 / FEP104	Functional English Beginners 2 Lab / Intermediate	0	0	4	2	
			Summer Internship (0-0-2)1 for II term t	o be eva	<b>luated</b> i	in III te	rm	
			TOTAL CREDITS				21.5	



# School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: III

S.	Paper	Course	Course	T	eaching	Load		Pre-Requisite/Co
No.	ID	Code		L	L T P		Credits	Requisite
THE	DRY SUBJ	ECTS						
1.		HMM305	Management for Engineers	3	0	0	3	-
2.	15176	MEC 215	Fluid Mechanics	3	0	0	3	-
3.		MEC 218	Basic Thermodynamics	3	0	0	3	-
4.		MEC 223	Material Science	2	0	0	2	-
5.		MEC 212	Engineering Mechanics	3	0	0	3	-
Practi	ical/Viva-V	oce/Jury		1	I	I	1	I
6.		ARP203	Aptitude Reasoning and Business Communication Skills Basic	0	0	4	2	-
7.		MEP212	Engineering Mechanics Lab	0	0	2	1	-
8.	15179	MEP215	Fluid Mechanics Lab	0	0	2	1	-
9.		MEP288	Project based Learning (PBL- I)	0	0	2	1	-
10.		MEP224	Metrology	0	0	2	1	-
11.		MEP295	Industrial Internship I	0	0	2	1	-
	1	1	TOTAL CREDITS	I	1	1	21	



## School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: IV

S.	Paper	Course	Course	Te	eaching	Load		Pre-Requisite/Co
No.	ID	Code		L	Τ	Р	Credits	Requisite
THE	DRY SUBJ	ECTS						
1.		BTY316	Introduction to Biology for Engineers	2	0	0	2	-
2.	15055	MEC 211	Strength of Materials	3	1	0	4	MEC 212
3.	15174	MEC 213	Kinematics of Machines	3	1	0	4	MEC 212
4.			CNC Machining Technology	3	0	0	3	-
5.	15626	MEC 219	Manufacturing Technology-I	3	0	0	3	-
Practi	cal/Viva-V	oce/Jury					1	
6.		ARP 204	Aptitude Reasoning and Business Communication Skills Intermediate	0	0	4	2	
7.	15059	MEP 211	Strength of Materials Lab	0	0	2	1	MEP 212
8.			CNC Machining Technology	0	0	2	1	-
9.	15627	MEP 219	Manufacturing Technology-I Lab	0	0	2	1	-
10.		MEP 289	Project based Learning (PBL- II)	0	0	2	1	-
11.		MEP 201	Idea Generation and Creativity Lab	0	0	2	1	-
	<u> </u>	Sı	ımmer Internship (0-0-2)1 for IV term t	o be ev	valuate	d in V te	erm	1
			TOTAL CREDITS				23	



### School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: V

S.	Paper	Course	Course	Т	eaching	Load		Pre-Requisite/Co Requisite
No.	ID	Code		L	Т	Р	Credits	
THEO	ORY SUBJ	ECTS						
1.			Digital Electronics	3	0	0	3	
2.		MEC324	Operation Research (Maths III-from Basket)	3	0	0	3	
3.		MEC322	Machine Design	3	0	0	3	
4.			Program Elective - I	3	0	0	3	
5.			Open Elective - I	3	0	0	3	
Practi	cal/Viva-V	oce/Jury		1	1	1	4	1
6.		MEP324	Operation Research Lab (Maths III-from Basket)	0	0	2	1	
7.			Digital Electronics	0	0	2	1	
8.			Open Elective - I	0	0	2	1	
9.		ARP301	Quantitative Aptitude Behavioral and Interpersonal Skills	0	0	4	2	
10.		MEP388	Project based Learning (PBL- III)	0	0	2	1	
11.		MEP395	Industrial Internship - II	0	0	2	1	
12.		MEP396	Technical Skill Enhancement course - I	0	0	2	1	
1		•	TOTAL CREDITS	•	•		23	

Prepared by : iGAP



### School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: VI

S.	Paper	Paper Course Course ID Code	Course	Т	eaching	Load		Pre-Requisite/Co
No.	ID		L	Т	Р	Credits	Requisite	
THEC	ORY SUBJ	ECTS						I
1.			Control System Engineering	3	0	2	4	
2.			Applied Hydraulics & Pneumatics	3	0	0	3	
3.			Program Elective - 2	3	0	0	3	
4.			Program Elective - 3	3	0	0	3	
5.			Open Elective - 3	3	0	0	3	
			Practical/Viva-Voce/	Jury				
6.		ARP302	Higher order Mathematics and people skills	0	0	4	2	
7.		MEP389	Project based Learning (PBL- IV)	0	0	2	1	
8.			Applied Hydraulics & Pneumatics	0	0	2	1	
9.		MEP397	Technical Skill Enhancement Course	0	0	2	1	
		S	ummer Internship (0-0-2)1 for VI term to	o be eva	luated i	n VII te	erm	1
			TOTAL CREDITS				21	



# School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: VII

S.	Paper	er Course	Course	Te	aching <b>I</b>	Load	Credits	Pre-Requisite/Co
No.	ID	Code		L	Т	Р		Requisite
THE	DRY SUBJ	ECTS						<u> </u>
1.			Program Elective - 4	3	0	0	3	
2.			Program Elective - 5	3	0	0	3	
3.			Open Elective - 3	2	0	0	2	
Practi	cal/Viva-V	oce/Jury					1	
4.		MEP463	Major Project-I	0	0	6	3	
5.		MEP495	Industrial Internship - III	0	0	2	1	
6.		ARC401	Problem solving creative thinking and Leadership skills	0	0	2	1	
			TOTAL CREDITS				13	



# School of Engineering and Technology Mechanical Engineering with specialization in Mechatronics Batch: 2018-2022 TERM: VIII

S.	Paper	Course	Course	Т	eaching	Load		Pre-Requisite/Co
No.	ID	Code		L	Т	Р	Credits	Requisite
THE	DRY SUBJ	ECTS						
1.			Program Elective - 6	3	0	0	3	
2.			Open Elective - 4	3	0	0	3	
Practi	ical/Viva-V	oce/Jury			1			1
3.		MEP464	Major Project-II	0	0	18	9	
			TOTAL CREDITS		•	•	15	