Department of Mechanical Engineering   Tezpur University

Curriculum structure:: Semester-wise distribution of courses for the Dual Degree in B.Tech. (Mechanical Engineering) – MBA Programme

[B.Tech. (Mechanical Engineering) with Minor in Management Module - Semester 1 to Semester 8]

(Courses Highlighted in pink are identified as Management Domain Courses for the Dual Degree Programme to be studied during the first eight semesters)

Semester	Code	Course	L	T	P	CR	CH	Mapped as a Management Domain Course? (Y/N)	Total credits in the Semester	Total credits mapped to the MBA Programme
1	APMS100	Mathematics - I	3	1	0	4	4	N	20	3
	APCH100	Chemistry	3	0	0	3	3	N		
	APCH101	Chemistry Lab	0	0	1	1	2	N		
	CSBT100	Programming for Problem Solving	2	0	0	2	2	N		
	CSBT101	Programming Lab	0	0	2	2	4	N		
	MEBT100	Manufacturing Practices Workshop	0	0	2	2	4	N		
	SEEC102	English	2	0	0	2	2	N		
	SEEC103	Language Lab	0	0	1	1	2	N		
	SEEC104	Universal Human Values	2	1	0	3	3	Y		
	SEIP100	Induction Program	0	0	4	0	8	N		
2	AMPS101	Mathematics - II	3	1	0	4	4	N	23	1
	APPH100	Physics	3	1	0	4	4	N		
	APPH101	Physics Lab	0	0	1	1	2	N		
	EEBT100	Basic Electrical Engineering	2	1	0	3	3	N		
	EEBT101	Basic Electrical Engineering Lab	0	0	1	1	2	N		
	ECBT102	Basic Electronics	2	0	0	2	2	N		
	ECBT103	Basic Electronics Lab	0	0	1	1	2	N		
	CEBT100	Engineering Graphics and Design	1	0	2	3	5	N		
	DDBD100	Design Thinking	0	0	1	1	2	Y		
	SEEC100	Environment Sciences	2	0	1	0	4	N		
	SEEC101	Biology for Engineers	3	0	0	3	3	N		
	SESP100 or SENS100 or SENC100	Sports and Yoga or NSS or NCC	0	0	2	0	4	N		

3	AMPS200	Mathematics-III	2	1	0	3	3	N	25	6
	MEBT201	Measurement and Metrology	3	0	1	4	5	N		
	MEBT202	Engineering Mechanics	3	1	0	4	4	N		
	MEBT203	Basic Thermodynamics	3	1	0	4	4	N		
	MEBT204	Engineering Materials and Applications	3	1	0	4	4	N		
	SEEC200	Fundamentals of Economics and Entrepreneurship for Engineers	3	0	0	3	3	Y		
	BA201**	Management Fundamentals	3	0	0	3	3	Y		
4	MEBT205	Applied Thermodynamics	3	1	0	4	4	N	25	3
	MEBT206	Mechatronics, Robotics and Control	3	0	1	4	5	N		
	MEBT207	Mechanics of Deformable Solids	3	1	0	4	4	N		
	MEBT208	Kinematics and Dynamics of Machines	3	1	0	4	4	N		
	MEBT209	Fluid Mechanics and Hydraulic Machines	3	1	0	4	4	N		
	MEBT210	Mech. Engg. Lab 1	0	0	2	2	4	N		
	SEEC201	IDEA Lab Workshop	0	0	2	0	4	N		
	BA 202 **	Marketing Management	3	0	0	3	3	Y		
5	MEBT301	Machine Element and System Design	3	1	0	4	4	N	24	10
	MEBT302	Heat Transfer	3	1	0	4	4	N		
	MEBT303	Manufacturing Processes	3	1	0	4	4	N		
	MEBT304	Production and Operation Management	3	1	0	4	4	Y		
	MEBT305	Mech. Engg. Lab 2	0	0	2	2	4	N		
	SEEC302	Finance and Accounting	3	0	0	3	3	Y		
	SEEC303	Essence of Indian Knowledge Tradition	1	0	0	0	1	N		
	BA 301**	Organization Behaviour	3	0	0	3	3	Y		

Sem	Code	Course	L	T	P	C	H	Type	Credits	
6	MEBT306	Computer-Aided Engineering	2	0	2	4	6	N	22	7
	MEBT307	Manufacturing Automation	3	0	1	4	5	N		
	MEBT308	Product Innovation, Marketing and Finance	3	1	0	4	4	Y		
	MEBT309	Mech. Engg. Lab 3	0	0	2	2	4	N		
	MEBT310	Engineering Project 1 (Seminar)	0	0	2	2	4	N		
	MEBT3XX	Professional Elective – 1	3	0	0	3	3	N		
	SEEC300	Professional Practice, Law and Ethics of Engineering	3	0	0	0	3	N		
	SEEC301	Constitution of India	1	0	0	0	1	N		
	BA302**	Research Methods in Business	3	0	0	3	3	Y		
7	MEBT4XX	Professional Elective – 2	3	0	0	3	3	N	22	6
	MEBT4XX	Professional Elective – 3	3	0	0	3	3	N		
	OEBT4XX	Open Elective – 1	3	0	0	3	3	N		
	OEBT4XX	Open Elective – 2	3	0	0	3	3	Y		
	MEBT401	Engineering Project 2 (Design and Analysis)	0	0	6	6	12	N		
	MEBT402	Seminar	0	0	1	1	2	N		
	BA401**	Business Communication and Negotiation	3	0	0	0	3	Y		
8	MEBT4XX	Professional Elective – 4	3	0	0	3	3	N	17	14
	OEBT4XX	Open Elective – 3	3	0	0	3	3	Y		
	MEBT403	Engineering Project 3 (Prototype and Testing)*	0	0	8	8	16	Y		
	BA402**	Human Resource Management	3	0	0	3	3	Y		
Total Credits									**178**	**50**

Industry internship: Internship in industry, start-up, or R&D lab in 2nd/3rd year summer is compulsory (audit). Longer internships for 6 months or full year including summer can be taken in the 7th/8th semester, in lieu of Engineering Project and Seminar. The internship must be properly evaluated in the form of Engineering Project – 2/Engineering Project – 3. In case of the students who undergo Industry Internship for the full 7th/8th semester, the credits for the Elective Courses in the corresponding semester shall be covered through MOOCS prescribed by the Department.

* For Engineering Project - 3, the project supervision shall be shared by faculty from both the Departments of Mechanical Engineering and Business Administration.

** The courses BA201, BA202, BA301, BA302, BA401, and BA402 are Minor courses in Management, with a total of 18 credits.

Semester-wise distribution of courses for the Dual Degree in B.Tech. (Mechanical Engineering) – MBA Programme

(MBA Module - Semester 9 and Semester 10)

Semester	Course detail								Total credits in the Semester
	Code	Course	L	T	P	CR	CH	
9	BA635	Strategic Management	3	0	0	3	3	25
	BA636 or BA637	**General Elective:** Operation Research or Supply Chain Management	3	0	0	3	3	
	BA638	Summer Internship Project	0	0	0	2	2	
		Specialization-A1				3		
		Specialization-B1				3		
		Specialization-A2				3		
		Specialization-B2				3		
	BA639	Business Ethics and Social Responsibility	2	0	0	2	2	
		CBCS (Optional MOOCS)				3		
10	BA645	Entrepreneurship Development Programme	2	0	0	2	2	24
	BA646	International Business and International Finance	3	0	0	3	3	
		Specialization-A3				3		
		Specialization-B3				3		
		Specialization-A4				3		
		Specialization-B4				3		
	BA647	Dissertation				2		
	BA648	Comprehensive Viva				2		
	BA649 or BA650 or BA651	**General Elective:** Business Analytics or Knowledge Management or Project Management	3	0	0	3	3	

Total minimum Credits to be completed for the Dual Degree in B.Tech. (Mechanical Engineering) – MBA programme =178 credits [including 32 credits from management domain) in the regular B.Tech. (Mechanical Engineering) curriculum structure + 18 (minor in management)] + 49 (MBA module) = 227 credits.