

# CURRICULUM



**B Tech – Mechanical Engineering (Design & Manufacturing)  
[2008 Batch Onwards]**

**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,  
DESIGN & MANUFACTURING, KANCHEEPURAM**

**B. TECH – MECHANICAL ENGINEERING (DESIGN & MANUFACTURING)**  
**[2008Batchonwards]**

**Semester 1**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
ELE 101	Basic Electrical & Electronics Engineering	3	0	0	3	BEC	AEC
MAT 101	Calculus	3	0	0	3	SMA	BSC
COM 102	Computational Engineering	3	0	0	3	BEC	AEC
PHY 105	Mechanics and Wave	3	0	0	3	SPH	BSC
MEC 106	Basic Thermal Engineering	3	0	0	3	BEC	BEC
INT 101	Graphic Art Practice	0	0	3	2	BEC	DES
INT 102	Basic Engineering Practice	0	0	3	2	BEC	BEC
COM 102P	Computational Engineering Practice	0	0	3	2	BEC	AEC
PHY 105P	Mechanics and Wave Practice	0	0	3	2	SPH	BSC
<b>Total</b>		<b>15</b>	<b>0</b>	<b>12</b>	<b>23</b>		

**Semester 2**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
MAT 103	ODEs & PDEs	3	0	0	3	SMA	BSC
INT 104	English for Communication	2	0	0	2	HSS	HMC
PHY 106	Electromagnetics and Quantum Mechanics	3	0	0	3	SPH	BSC
MEC 108	Materials Engineering	3	0	0	3	PMC	PEC
MEC 109	Statics and Strength of Materials	3	1	0	4	BEC	BEC
INT 105	Engineering Drawing	1	0	3	3	BEC	BEC
INT 106	Mechanical Engineering Practice	0	0	3	2	BEC	BEC
PHY 106P	Electromag. and Quantum Mech. Practice	0	0	3	2	SPH	BSC
<b>Total</b>		<b>15</b>	<b>1</b>	<b>9</b>	<b>22</b>		

**Semester 3**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
INT 201	Concepts in Engineering Design	3	0	0	3	BEC	DES
MAT 201	Linear Algebra and Optimization	3	0	0	3	SMA	BSC
MEC 201	Manufacturing Technology	3	0	0	3	PMC	PEC
ELE 205	Electrical Drives	3	0	0	3	PMC	AEC
MEC 208	Kinematics and Dynamics	3	1	0	4	PMC	PEC
MEC 204	Machine Drawing Practice	1	0	3	3	PMC	PEC
ELE 205P	Electrical Drives Practice	0	0	3	2	PMC	AEC
MEC 211	Applied Mechanics Practice	0	0	3	2	PMC	PEC
<b>Total</b>		<b>16</b>	<b>1</b>	<b>9</b>	<b>23</b>		

**Semester 4**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
MEC 202	Fluid Mechanics and Heat Transfer	3	0	0	3	PMC	PEC
MAT 203	Probability and Statistics	3	0	0	3	SMA	BSC
ELE 210	Electronic Circuit Design	3	0	0	3	PMC	AEC
ELE 211	Control Engineering	3	0	0	3	PMC	AEC
MEC 212	Mechanical Design Concepts	3	0	0	3	PMC	PEC
MEC 209	Engineering Simulations I	1	0	3	3	PMC	PEC
ELE 210P	Electronic Circuit Design Practice	0	0	3	2	PMC	AEC
ELE 211P	Control Engineering Practice	0	0	3	2	PMC	AEC
<b>Total</b>		<b>16</b>	<b>0</b>	<b>9</b>	<b>22</b>		

**Semester 5**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
INT 302	Ecology and Environment	2	0	0	2	HSS	HMC
ELE 303	Microprocessor & Embedded Controllers	3	0	0	3	PMC	AEC
MEC 303	Precision Manufacturing and Metrology	3	0	0	3	PMC	PEC
MEC 313	Machine Elements Design	3	0	0	3	PMC	PEC
ELE 303P	Microprocessor & Embedded Controllers Practice	0	0	3	2	PMC	AEC
MEC 303P	Precision Mfg. and Metrology Practice	0	0	3	2	PMC	PEC
ELE 304	Instrumentation Practice	1	0	3	3	PMC	AEC
	Elective 1	3	0	0	3	ELE	PEC
<b>Total</b>		<b>15</b>	<b>0</b>	<b>9</b>	<b>21</b>		

**Semester 6**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
MAN 302	Quality and Reliability Management	3	0	0	3	HSS	HMC
MEC 306	Geometric Modeling and CAD	3	0	0	3	PMC	PEC
MEC 314	Finite Element Analysis	3	0	0	3	PMC	PEC
MEC 315	Applied Thermal Engineering	4	0	0	4	PMC	PEC
INT 303	Product Design and Practice	0	0	3	2	PMC	DES
MEC 315P	Applied Thermal Engineering Practice	0	0	3	2	PMC	PEC
	Elective 2	3	0	0	3	ELE	PEC
<b>Total</b>		<b>16</b>	<b>0</b>	<b>6</b>	<b>20</b>		

**Semester 7**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
MAN 401	Professional Ethics	2	0	0	2	HSS	HMC
MEC 402	Robotics and Automation	3	0	0	3	PMC	PEC
MEC 403	Production Engineering Management	3	0	0	3	PMC	PEC
MEC 401	Engineering Simulations II	1	0	3	3	PMC	PEC
MEC 402P	Robotics and Automation Practice	0	0	3	2	PMC	PEC
INT 401	Mini Project	0	0	3	2	PMP	PEC
	Elective 3	3	0	0	3	ELE	PEC
	Elective 4	3	0	0	3	ELE	PEC
<b>Total</b>		<b>15</b>	<b>0</b>	<b>9</b>	<b>21</b>		

**Semester 8**

Course No	Course Name	L	T	P	C	Cat	NEW CAT
MAN 404	Finance Management	3	0	0	3	HSS	HMC
INT 402	Project	0	0	24	16	PMP	PEC
	Elective 5	3	0	0	3	ELE	PEC
<b>Total</b>		<b>6</b>	<b>0</b>	<b>24</b>	<b>22</b>		

**Compulsory Activities:** Summer Internship(2<sup>nd</sup> or 3<sup>rd</sup> year vacation), Industrial Lecture, NSS/NCC/Yoga

BSC	BEC	PEC	HMC	AEC	DES	Total
22	14	88	12	31	07	174