

**Course Structure**  
**of**  
**Department of Mechanical Engineering**  
**Dibrugarh University Institute of Engineering and Technology**  
**(DUIET)**  
**Dibrugarh University**  
**Dibrugarh**  
**(For the batches 2021 onwards)**

### Semester III (Second year)

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hours	Credits
				Lecture	Tutorial	Practical		
1	Basic Science Courses	BSC- 201	Physics II (Optics & Waves)	3	0	0	3	3
2	Basic Science Courses	BSC- 202	Mathematics III (PDE, Probability & Statistics)	3	0	0	3	3
3	Professional Core courses	PCC- ME 201	Materials Engineering	3	0	0	3	3
4	Engineering Science courses	ESC- 201	Basic Electronics Engineering	3	0	0	3	3
5	Engineering Science courses	ESC- 202	Engineering Mechanics	3	0	0	3	3
6	Professional Core courses	PCC- ME 202	Thermodynamics	3	1	0	4	4
7	Basic Science Courses	BSC-211	Physics-II Laboratory	0	0	1	2	1
8	Engineering Science courses	ESC-212	Engineering Mechanics Laboratory	0	0	1	2	1
9	Project/Seminar/Internship etc.	PROJECT- ME 213	Internship-I	0	0	3	6	3
10	Mandatory Course	MC-201	Indian knowledge system	0	0	0	0	0
<b>Total credits</b>							<b>24</b>	

### Semester IV (Second year)

Sl. No.	Category	Code	Course Title	Credit structure			Total contact hours	Total Credits
				Lecture	Tutorial	Practical		
1	Professional Core courses	PCC-ME 203	Applied Thermodynamics	3	1	0	4	4
2	Professional Core courses	PCC-ME 204	Fluid Mechanics and Fluid Machines	4	1	0	5	5
3	Professional Core courses	PCC-ME 205	Strength of Materials	3	1	0	4	4
4	Engineering Science courses	PCC-ME 206	Kinematics & Theory of Machines	3	1	0	4	4
5	Humanities and Social Sciences including Management	HSMC-222	Technical English	0	0	2	4	2
6	Professional Core courses	PCC-ME-211	Strength of materials Laboratory	0	0	1	2	1
7	Professional core Courses	PCC-ME-212	Applied Thermo Laboratory	0	0	1	2	1
8	Professional core Courses	PCC-ME-213	Fluid Mechanics & Hydraulics Laboratory	0	0	1	2	1
<b>Total credits</b>							<b>22</b>	

### Semester V (Third year)

Sl. No.	Category	Code	Course Title	Credit Structure			Total contact hours	Total Credits
				Lecture	Tutorial	Practical		
1	Professional Core courses	PCC- ME 301	Heat Transfer	3	1	0	4	4
2	Professional Core courses	PCC- ME 303	Manufacturing Processes	3	0	0	3	3
3	Professional Core courses	PCC- ME 304	Instrumentation & Control	3	0	0	3	3
4	Open Elective courses	PEC- MEL- 321/322	Elective-I	3	0	0	3	3
5	Humanities and Social Sciences including Management courses	HSMC-301	Managerial Economics	3	0	0	3	3
6	Professional Core courses	PCC- ME 311	Heat transfer Laboratory	0	0	1	2	1
7	Professional core courses	PCC- ME-312	Dynamics of Machinery Laboratory	0	0	1	2	1
8	Mandatory course	MC -301	Constitution Of India	0	0	0	0	0
9	Professional Core courses	PCC- ME 314	Workshop (Design)	0	0	1	2	1
10	Project/Seminar/Internship etc.	PROJE CT- ME- 315	Internship-II	0	0	4	8	4
<b>Total Credits</b>								<b>23</b>

### Semester VI (Third year)

Sl. No.	Category	Code	Course Title	Credit structure			Total contact hours	Total Credits
				Lecture	Tutorial	Practical		
1	Professional Core courses	PCC-ME 305	Manufacturing Technology	3	0	0	3	3
2	Professional Core courses	PCC-ME 306	Design of Machine Elements	3	1	0	4	4
3	Professional Elective courses	OEC-301	Open Elective-I	3	0	0	3	3
4	Professional Elective courses	PEC-MEL-323/324	Elective-II	3	0	0	3	3
5	Humanities and Social Sciences including Management	HSMC-303	Management & Accountancy	3	0	0	3	3
6	Mini project	PCC-ME 315	Project-I	0	0	1	2	1
				<b>Total</b>			<b>credits</b>	<b>17</b>

### Semester VII (Fourth year)

Sl. No	Category	Code	Course Title	Credit Structure			Total contact hours	Total Credits
				Lecture	Tutorial	Practical		
1	Open Elective courses	OEC-401	Open Elective-II	3	0	0	3	3
2	Professional Elective courses	PEC-MEL-421/422	Elective-III	3	0	0	3	3
3	Professional Elective courses	PEC-MEL-423/424	Elective-IV	3	0	0	3	3
4	Open Elective courses	OEC-402	Open Elective-III	3	0	0	3	3
5	Project/Seminar/Internship etc.	PROJ-ME 411	Internship-III	0	0	4	8	4
6	Project	PROJ-ME 412	Project-III	0	0	4	8	4
<b>Total credits</b>							<b>20</b>	

**Semester VIII (Fourth year)**

Sl. No	Category	Code	Course Title	Credit Structure			Total contact hours	Total Credits
				Lecture	Tutorial	Practical		
1	Professional Elective Courses	PEC-MEL-425/426/427	Elective V	3	0	0	3	3
2	Professional Elective Courses	PEC-MEL-428/429	Elective VI	3	0	0	3	3
3	Open Elective courses	OEC- 403	Open Elective-IV	3	0	0	3	3
4	Open Elective courses	OEC- 404	Open Elective-V	3	0	0	3	3
5	Project	PROJ-ME 413	Project-IV	0	0	4	8	4
6		ME-414	Composite viva voce	0	0	0	0	2
							<b>Total credits</b>	<b>18</b>

**TOTAL CREDITS – 162**  
(including 38 for 1<sup>st</sup> year)

**Professional Elective Courses**

	Code	Subject	Semester	Credits
Elective-I	PEC-MEL-321	Numerical Methods and computation	VI	3-0-0-3
	PEC-MEL-322	Finite Element Analysis	VI	3-0-0-3
Elective-II	PEC-MEL-323	Power Plant Engineering	VI	3-0-0-3
	PEC-MEL-324	Computational Fluid Dynamics	VI	3-0-0-3
Elective-III	PEC-MEL-421	Composite Material	VII	3-0-0-3
	PEC-MEL-422	Gas Dynamics and jet propulsion	VII	3-0-0-3
Elective-IV	PEC-MEL-423	Refrigeration & Air conditioning	VII	3-0-0-3
	PEC-MEL-424	Microprocessor in Automation	VII	3-0-0-3
Elective-V	PEC-MEL-425	Design of Transmission system	VIII	3-0-0-3
	PEC-MEL-426	Total Quality Management	VIII	3-0-0-3
	PEC-MEL-427	Concurrent Engineering	VIII	3-0-0-3
Elective-VI	PEC-MEL-428	Robotics and Machine learning	VIII	3-0-0-3
	PEC-MEL-429	IC Engine	VIII	3-0-0-3
<b>Total Credits</b>				<b>18</b>

**Open Electives**

	Code	Subject	Semester	Credits
Open Elective-I	OEC-301	Additive Manufacturing	VI	3-0-0-3
Open Elective-II	OEC-401	Industrial Engineering and Management	VII	3-0-0-3
Open Elective-III	OEC-402	Operation Research	VII	3-0-0-3
Open Elective-IV	OEC-403	Statistical Quality Control	VIII	3-0-0-3
Open Elective-V	OEC-404	Non-Conventional Energy	VIII	3-0-0-3
<b>Total Credits</b>				<b>15</b>