



राष्ट्रीय प्रौद्योगिकी संस्थान, मिजोरम  
NATIONAL INSTITUTE OF TECHNOLOGY, MIZORAM  
(An Institute of National Importance under Ministry of HRD, Govt. of India)  
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**DEPARTMENT OF MECHANICAL ENGINEERING**

**1<sup>st</sup> Semester:**

SL.No	Course code	Course Title	L-T-P	Credits
1.	HUL1101	Communicative English	3-0-0	6
2.	MAL1101	Mathematics-I	3-1-0	8
3.	PHL1101	Physics	3-0-0	6
4.	PHP1101	Physics Practical	0-0-2	2
5.	MEL1101	Engineering Mechanics	3-1-0	8
6.	MEP1102	Engineering Mechanics Practical	0-0-2	2
7.	CSL1101	Computer programming	3-0-0	6
8.	CSP1101	Computer Programming Practical	0-0-2	2
<b>Total</b>				<b>40</b>

**2<sup>nd</sup> Semester:**

SL.No	Course code	Course Title	L-T-P	Credits
1.	HUL1202	Social Science	2-0-0	4
2.	MAL1202	Mathematics-II	3-1-0	8
3.	CHL1201	Chemistry	3-0-0	6
4.	CHP1201	Chemistry Practical	0-0-2	2
5.	EEL1201	Basic Electrical Engineering	3-0-0	6
6.	EEL1201	Basic Electrical Engineering Practical	0-0-2	2
7.	MEL1203	Engineering Drawing	2-0-4	8
8.	MEP1204	Mechanical Workshop	0-0-4	4
<b>Total</b>				<b>40</b>

**3<sup>rd</sup> Semester:**

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1305	Material Science	3-0-0	6
2.	MEL1306	Basic Thermodynamics	2-1-0	6
3.	MEL1307	Solid Mechanics- I	2-1-0	6
4.	MEL1308	Machine Drawing	1-0-4	6
5.	MEL1309	Fluid Mechanics-I	2-1-0	6
6.	MAL1301	Mathematical Method	3-0-0	8
7.	MEP1310	Strength of Materials Laboratory	0-0-3	3
8.	MEP1311	Fluid Mechanics Laboratory-I	0-0-3	3
<b>Total</b>				<b>42</b>

**4<sup>th</sup> Semester:**

SL.No	Course code	Course Title	L-T-P	Credits
1.	MAL1403	Numerical Methods	3-0-0	6
2.	MEL1412	Solid Mechanics- II	3-0-0	6
3.	EEL1405	Industrial Instrumentation & Control	3-0-0	6
4.	MEL1413	Dynamics of Machinery- I	3-0-0	6
5.	MEL1414	Applied Thermodynamics	3-0-0	6
6.	MEL1415	Fluid Mechanics- II	3-1-0	8
7.	MEP1416	Dynamics of Machinery Laboratory - I	0-0-3	3
8.	MEP1417	Fluid Mechanics Laboratory- II	0-0-3	3
<b>Total</b>				<b>44</b>

**5<sup>th</sup> Semester**

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1518	Heat Transfer	3-1-0	8
2.	MEL1519	Manufacturing Process- I	3-0-0	6
3.	MEL1520	Machine Design- I	3-1-0	8
4.	MEL1521	Dynamic of Machinery- II	3-0-0	6
5.	MEL1522	Industrial Management & Operation Research	3-0-0	6
6.	MEP1523	Thermal Laboratory- I	0-0-3	3
7.	MEP1524	Manufacturing Laboratory- I	0-0-2	2
8.	MEP1525	Dynamics of Machinery Laboratory - II	0-0-3	3
<b>Total</b>				<b>42</b>

**6<sup>th</sup> Semester**

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1626	Engineering Inspection & Quality Control	3-0-0	6
2.	MEL1627	Machine Design- II	3-1-0	8
3.	MEL1628	Manufacturing Process- II	3-0-0	6
4.	MEL1629	I.C. Engine	3-0-0	6
5.	MEL1630	Turbo Machinery	3-0-0	6
6.	HUL1601	Micro Economics & Business Environment	3-0-0	6
7.	MEP1631	Thermal Laboratory- II	0-0-3	3
8.	MEP1632	Manufacturing Laboratory- II	0-0-3	3
<b>Total</b>				<b>44</b>

Industrial Training (Audit Course)

### 7<sup>th</sup> Semester

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1733	CAD / CAM / CIM	3-0-0	6
2.	MEL1734	Power Plant Technology	3-0-0	6
3.	MEL17XX	Elective - I	3-0-0	6
4.	MEP17XX	Elective - II	3-0-0	6
5.	MEP1743	Project-I	0-0-8	8
6.	MEP1744	Thermal Laboratory- III	0-0-3	3
7.	MEP1745	Instrumentation & Metrology Laboratory- III	0-0-3	3
<b>Total</b>				<b>38</b>

#### Elective-I

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1735	Fluidization Engineering	3-0-0	6
2.	MEL1736	Refrigeration & Air Conditioning	3-0-0	6
3.	MEL1737	Vibration	3-0-0	6
4.	MEL1738	Convective Heat & Mass Transfer	3-0-0	6

#### Elective-II

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1739	Combustion	3-0-0	6
2.	MEL1740	Advance Machining Science	3-0-0	6
3.	MEL1741	Hydraulic Circuit & Control	3-0-0	6
4.	MEL1742	Renewable Energy	3-0-0	6

### 8<sup>th</sup> Semester

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1846	Advance Manufacturing Processes	3-0-0	6
2.	MEL1847	Environment Pollution & its Control	3-0-0	6
3.	MEL18XX	Elective -III	3-0-0	6
4.	MEP18XX	Open Elective	3-0-0	6
5.	MEP1857	Project- II	0-0-12	12
6.	MEP1858	Manufacturing Laboratory- III	0-0-2	2
<b>Total</b>				<b>38</b>

#### Elective-III

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1848	Computational Fluid Dynamics	3-0-0	6
2.	MEL1849	Soft Computing	3-0-0	6
3.	MEL1850	Experimental stress Analysis	3-0-0	6
4.	MEL1851	Innovation & Entrepreneurship	3-0-0	6

#### Open Elective

SL.No	Course code	Course Title	L-T-P	Credits
1.	MEL1852	Optimization Techniques	3-0-0	6
2.	MEL1853	Finite Element Method	3-0-0	6
3.	MEL1854	Mechatronics	3-0-0	6
4.	MEL1855	Marketing Management	3-0-0	6
5.	MEL1856	Exergy- A Measure of Work Potential	3-0-0	6

**Department of Mechanical Engineering Total Credit Point for  
B-Tech Course**

<b>Semester</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>	<b>VII</b>	<b>VIII</b>	<b>Total</b>
<b>Credit</b>	40	40	42	44	42	44	38	38	<b>328</b>