

## Diploma in Mechanical Engineering Syllabus Overview

### Semester - First

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME									Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT						
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot		
1.1	*English and Communication Skills - I	3	2	25	25	50	75	3	25	3	100	150	
1.2	*Applied Mathematics - I	5	-	25	-	25	75	3	-	-	75	100	
1.3	*Applied Physics - I	4	2	25	25	50	75	3	25	3	100	150	
1.4	*Applied Chemistry - I	4	2	25	25	50	75	3	25	3	100	150	
1.5	*Basics of Information Technology	-	3	-	50	50	-	-	50	3	50	100	
1.6	*Engineering Drawing - I	-	6	-	50	50	100	4	-	-	100	150	
1.7	*General Workshop Practice - I	-	6	-	100	100	-	-	75 <sup>+</sup>	4	75	175	
#Student Centred Activities including Traffic Awareness and Road Safety Camp(I)		-	3	-	25	25	-	-	-	-	-	25	
<b>Total</b>		<b>16</b>	<b>24</b>	<b>100</b>	<b>300</b>	<b>400</b>	<b>400</b>	<b>-</b>	<b>200</b>	<b>-</b>	<b>600</b>	<b>1000</b>	

\* Common course with other diploma programmes

# SCA will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., N.S.S., Cultural Activities etc..

+ Including 25 marks for viva-voce.

## Semester - Second

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME									Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT						
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot		
2.1	*English and Communication Skills – II	3	2	25	25	50	75	3	25	3	100	150	
2.2	*Applied Mathematics - II	5	-	25	-	25	75	3	-	-	75	100	
2.3	*Applied Physics – II	4	2	25	25	50	75	3	25	3	100	150	
2.4	*Applied Chemistry – II	4	2	25	25	50	75	3	25	3	100	150	
2.5	*Environment Studies	3	-	25	-	25	75	3	-	-	75	100	
2.6	*Engineering Drawing – II	-	6	-	50	50	100	4	-	-	100	150	
2.7	*General Workshop Practice – II	-	6	-	100	100	-	-	75 <sup>+</sup>	4	75	175	
#Student Centred Activities including Traffic Awareness and Road Safety Camp(II)		-	3	-	25	25	-	-	-	-	-	25	
<b>Total</b>		<b>19</b>	<b>21</b>	<b>125</b>	<b>250</b>	<b>375</b>	<b>475</b>	<b>-</b>	<b>150</b>	<b>-</b>	<b>625</b>	<b>1000</b>	

\* Common course with other diploma programmes

# SCA will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., N.S.S., Cultural Activities etc..

+ Including 25 marks for viva-voce.

### Semester - Third

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
3.1	Engineering Materials	3	2	25	25	50	75	3	50	3	125	175
3.2	*Applied Mechanics	3	2	25	25	50	75	3	25	3	100	150
3.3	**Elements of Electrical and Electronics Engineering	3	2	25	25	50	75	3	50	3	125	175
3.4	Metrology and Instrumentation	4	2	25	25	50	75	3	50	3	125	175
3.5	Mechanical Engineering Drawing-I	-	7	-	50	50	75	4	-	-	75	125
3.6	**Workshop Technology - I	3	7	25	25	50	75	3	50	3	125	175
# Student Centred Activities including Energy Conservation Awareness Camp; Drug Use and Abuse Awareness Camp		-	2	-	25	25	-	-	-	-	-	25
<b>Total</b>		<b>16</b>	<b>24</b>	<b>125</b>	<b>200</b>	<b>325</b>	<b>450</b>	<b>-</b>	<b>225</b>	<b>-</b>	<b>675</b>	<b>1000</b>

\* Common with diploma programmes in Automobile Engineering and Civil Engineering

\*\* Common with diploma programme in Automobile Engineering

# Will comprise of co-curricular activities like games, hobby clubs e.g. photography, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities etc.

### Semester - Fourth

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of <b>Int. &amp; Ext.</b>
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
4.1	*Generic Skills and Entrepreneurship Development	3	-	25	-	25	75	3	-	-	75	100
4.2	Hydraulics and Pneumatics	4	2	25	25	50	75	3	50	3	125	175
4.3	**Strength of Materials	4	2	25	25	50	75	3	50	3	125	175
4.4	Thermodynamics-I	4	2	25	25	50	75	3	50	3	125	175
4.5	Mechanical Engineering Drawing - II	-	7	-	50	50	75	4	-	-	75	125
4.6	**Workshop Technology - II	3	7	25	25	50	75	3	50	3	125	175
# Student Centred Activities including Entrepreneurial Awareness camp		-	2	-	25	25	-	-	-	-	-	25
<b>Total</b>		<b>18</b>	<b>22</b>	<b>125</b>	<b>175</b>	<b>300</b>	<b>450</b>	<b>-</b>	<b>200</b>	<b>-</b>	<b>650</b>	<b>950</b>

\* Common with other diploma programmes

\*\* Common with diploma in Automobile Engineering

# Will comprise of co-curricular activities like games, hobby clubs e.g. photography, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities etc.

**Industrial Training** - After examination of 4<sup>th</sup> Semester, the students shall go for training in a relevant industry/field organisation for a minimum period of 6 weeks and shall prepare a diary. It shall be evaluated during 5<sup>th</sup> semester by his/her teacher for 50 marks. The students shall also prepare a report at the end of training and shall present it in a seminar, which will be evaluated for another 50 marks. This evaluation will be done by HOD and lecturer incharge – training in the presence of one representative from training organizations.

### Semester - Fifth

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
	Industrial Training during vacations after 4 <sup>th</sup> Semester	-	-	-	50	50	-	-	50	3	50	100
5.1	*Basics of Management	3	-	25	-	25	75	3	-	-	75	100
5.2	Refrigeration and Air-conditioning	4	2	25	25	50	75	3	50	3	125	175
5.3	Thermodynamics-II	4	2	25	25	50	75	3	50	3	125	175
5.4	Theory of Machines	4	-	25	-	25	75	3	-	-	75	100
5.5	Computer Aided Drafting and Modelling	-	8	-	50	50	-	-	75	3	75	125
5.6	Workshop Technology - III	4	7	25	25	50	75	3	50	3	125	175
	Student Centred Activities including Personality Development Camp	-	2	-	25	25	-	-	-	-	-	25
<b>Total</b>		<b>19</b>	<b>21</b>	<b>125</b>	<b>200</b>	<b>325</b>	<b>375</b>	<b>-</b>	<b>275</b>	<b>-</b>	<b>650</b>	<b>975</b>

\* Common with other diploma programmes

# Will comprise of co-curricular activities like games, hobby clubs e.g. photography, seminars, declamation contests, educational field visits,

N.C.C., NSS, Cultural Activities etc.

**Semester - Sixth**

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
6.1	Production Management	4	-	25	-	25	75	3	-	-	75	100
6.2	Machine Design	4	-	25	-	25	75	3	-	-	75	100
6.3	Automobile Engineering	4	3	25	25	50	75	3	50	3	125	175
6.4	CNC Machines and Automation	4	3	25	25	50	75	3	50	3	125	175
6.5	Project Work	-	15	-	100	100	-	-	100	¼	100	200
Student Centred Activities		-	3	-	25	25	-	-	-	-	-	25
<b>Total</b>		<b>16</b>	<b>24</b>	<b>125</b>	<b>200</b>	<b>325</b>	<b>375</b>	<b>-</b>	<b>250</b>	<b>-</b>	<b>625</b>	<b>950</b>

# Will comprise of co-curricular activities like games, hobby clubs e.g. photography, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities etc.