

Sardar Patel College of Engineering Andheri (West), Mumbai 400 058  
Year: 2024-25



**Bharatiya Vidya Bhavan's**  
**SARDAR PATEL COLLEGE OF ENGINEERING**

(Government Aided Autonomous Institute under Mumbai University)

Andheri (W), Mumbai - 400058



**First Year B.Tech. in Mechanical Engineering with Minor in [\*\*\*\*]**

**Academic Evaluation Scheme/Credit System**

**Year: 2024-25**

**Regulation 23**



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<b>Scheme for F.Y.B.Tech. In Mechanical Engineering with Minor in [****], (Semester - II) R23</b>													
<b>Academic Year 2024-25</b>													
Sr. No.	Course Name	Code	Course Plan per Week (Hrs)			Credits	In semester Evaluation (Points)			End Semester Evaluation (Points)		End semester weightage (%)	Total Points
			L	P	T		T-I	T-II	IE	Points	Time (Hrs)		
<b>Theory Courses</b>													
1	Integral Calculus and Differential Equations (ICDN)	BS-BTM201	2	0	1	3	15	15	20	100	3	50%	100
2	Engineering Chemistry	BS-BTM202	2	0	0	2	15	15	20	100	3	50%	100
3	Basic Electrical Engineering	ES-BTM201	2	0	0	2	15	15	20	100	3	50%	100
4	Manufacturing Processes	PC-BTM201	3	0	1	4	15	15	20	100	3	50%	100
<b>Laboratory Courses</b>													
5	Engineering Chemistry Lab.	BS-BTM251	0	2	0	1	-	-	25	25	-	100%	50
6	Basic Electrical Engineering Lab.	ES-BTM251	0	2	0	1	-	-	25	25	-	100%	50
<b>Vocational and Skill Enhancement</b>													
7	Programming for Problem Solving	SE-BTM201	0	4	0	2	15	15	20	50	-	100%	50
8	Mechanical Workshop	VS-BTM201	0	2	0	1	-	-	25	25	-	100%	50
<b>Ability Enhancement Courses</b>													
9	Communication Skills	AE-BTM201	2	0	1	3	15	15	20	100	3	50%	100
<b>Indian Knowledge System</b>													
10	Indian traditional Knowledge	IK-BTM201	2	0	0	2	15	15	20	50	2	100%	100
<b>Co-curricular Activity</b>													
12	Co-curricular course/activity	CC-BTM201	1							\$\$\$			100
	<b>TOTAL</b>		<b>14</b>	<b>10</b>	<b>3</b>	<b>21</b>							<b>900</b>

**L: Lecture P: Practical T Tutorial T1: in semester test 1 T2: In semester test 2 IE: Internal Evaluation**

### **Evaluation for R23**

1. T1, T2: The courses under the category “Theory courses” and “Ability Enhancement Courses”. the evaluation is based on Test of 15 points each for one hour duration. Tentatively the first two modules of the course content will be covered in T1 and third and fourth modules of the course content will be covered in T2. Any change in the same will be informed by the course instructor.

The courses under the category “Skill Enhancement”, “Value Education” and Indian Knowledge system”, the evaluation is based on activity (Presentation, Test, Mini project, Field project, Practical Examination) of 15 points each.

2. IE: Internal Evaluation (Except Laboratory courses) will be carried out by course instructor for 20 points. It is the continuous evaluation throughout the semester. The evaluation will be based on minimum three of the following activities decided by course instructor. The maximum points that can be assigned to one activity will be 07. The course instructor needs to inform the students and head of the department about the activities those will be considered for IE and the points assigned to them in first week of semester. The course instructor will submit the internal evaluation points (out of 20 with activity wise break up) to examination section before the beginning of End Semester examination.

List of Activities: 1. Class Involvement 2. Assignments 3. Problem Solving 4. Mini project 5. Quizzes 6. Presentation 7. Oral

Internal evaluation of the laboratory courses is of 25 marks. The evaluation is based on weekly practical assignments and students participation in laboratory work.

3. End semester evaluation: The courses under the category “Theory courses” and “Ability Enhancement Courses”. The evaluation is based on End semester examination of 100/50 points. **The end semester examination will cover all the modules of the course content.**

The courses under the category “Skill Enhancement”, “Value Education” and “Indian knowledge system”, the evaluation is based on activity (Presentations, Tests, Mini projects, Field project, Practical Examination) of 50 points.

End semester for laboratory courses shall be of 25 points which includes Practical examination/ Mini project/ oral examination.

4. \$\$\$\$ The evaluation for Co-curricular course/ activity shall be defined by course instructor or activity evaluator. The evaluation for 50 points will be carried out throughout the semester and the grade Pass/ No pass will be awarded which will not be considered for CPI calculation.

**Note: Refer Academic and Examination rules and regulations for further details.**

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**Year: 2024-25**

UG certificate:

The student who wish to Exit after first year and willing to get “UG Certificate” needs to earn additional 6 credits through

1. \*\*Skill Enhancement course 1 [SE-BTM202] : 3 credits
2. \*\*Skill Enhancement course 2 [SE-BTM203] : 3 credits

\*\* The courses should be completed through SWAYAM/ NPTEL defined by the department

[\*\*\*\*] Multidisciplinary Minor

The institute will offer Multidisciplinary Minor from the following list based on the resources available. Each Minor is designed for 14 credits. The students

Need to select the Minor in the beginning of semester IV.

- Minor in Robotics
  - Minor in Management
  - Minor in Sustainable Engineering and Management
  - Minor in Industry 4.0 technology
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