



Bharatiya Vidya Bhavan's
SARDAR PATEL COLLEGE OF ENGINEERING
(Government Aided Autonomous Institute under Mumbai University)
Andheri (W) Mumbai - 400058



ACADEMIC RULES AND REGULATIONS

(UNDERGRADUATE PROGRAMMES)

Academic Year
2023_2024

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1. UNDERGRADUATE PROGRAMMES OF STUDY OFFERED BY THE INSTITUTE

Institute offers AICTE approved and University of Mumbai affiliated B. Tech. programmes in Major Engineering as listed in Table 1.

Table 1: Undergraduate programmes of study offered by the institute

SR. NO.	NAME OF THE PROGRAMME IN MAJOR ENGINEERING
i)	B.Tech. in Civil Engineering
ii)	B.Tech. in Mechanical Engineering
iii)	B.Tech. in Electrical Engineering

2. STRUCTURE OF THE PROGRAMMES

2.1.Course Credit Scheme

The following three schemes shall run in the institute

Regulation 18 [R18]: Applicable to students who are admitted in academic years 2018-2019, 2019-2020, 2020-2021, 2021-2022.

Regulation R22 [R22]: Applicable to students who are admitted from academic year 2022-2023 till next regulation.

Regulation R23 [R23]: Applicable to student who are admitted from academic year 2023-2024 till next regulation. In R 23 the student shall be awarded as B. Tech. in [Major] Engineering with Minor in [Multidisciplinary].

2.2. Categorization of Courses

Every B. Tech. Programme shall have a course credit system consisting of theory and practical/tutorial courses that shall be categorized as follows:

- **Humanities and Social Sciences including Management Course (HSMC)** courses include Technical English, Communication skills, Management studies [Included in R18 and R22]
- **Basic Sciences Course (BS)** courses include Mathematics, Physics, Chemistry [Included in R18, R22 and R23].
- **Engineering Sciences Course (ES)** courses include Engineering practices, Engineering Graphics, Basics of Electrical / Civil / Mechanical Engineering [Included in R18, R22 and R23].

- **Professional Core Course (PC)** courses include the core courses, both theory and laboratory relevant to the chosen specialization/branch [Included in R18, R22 and R23].
- **Professional Elective Course (PE)** courses include the elective courses relevant to the chosen specialization/branch. The elective courses are grouped as per streams / tracks related to the branch of engineering [Included in R18, R22 and R23].
- **Open Elective Course (OE)** interdisciplinary courses offered by department to all department students [Included in R18, R22 and R23].
- **Value Added courses (VAC)** include the courses offered by faculty in the emerging areas of various discipline, in order to impart value to the knowledge and skills of the students The courses will help students to remain abreast with the latest trends [Included in R18 and R22]..
- **Value Added Non –Technical courses (VNT)** courses offered by Center for Continuing Education(CCE) for overall development of students [Included in R18 and R22]..
- VAC, VNT shall be of total 30 Hours duration. These courses shall be offered in semester or during vacation based on the resources available
- **Mandatory Course (MC)** course work on peripheral subjects in a programme, which is considered mandatory; to be included as non-credit, Mandatory Courses, which a student must pass before obtaining degree. The courses will cover Employability Skills, Engineering Ethics, Human Values and Environmental Science and Engineering[Included in R18 and R22]..
- **Skill Based Course (SBC)** courses will provide hands on experience. It will focus on how to do something specific which can be put to immediate use. [Included in R22].
- **Online Course (OC)** courses offered by SWAYAM, NPTEL [Included in R18, R22 and R23].
- **Project Course (PR)** courses involving project work by group of students under the supervision of department faculty [Included in R18, R22 and R23]..
- **Internship (INT):** A student can complete internship in industry or research institute and get industry/research experience [Included vacation internship in R18 and in semester internship in R22 (**Optional**)]. In R23 in semester internship is compulsory
- **Vocational (VS) and Skill Enhancement (SE) Courses:** courses will provide hands on experience. It will focus on how to do something specific which can be put to immediate use. [Included in R23].
- **Value Education Course (VE):** Courses such as Understanding India, Environmental Science/Education, and Digital and Technological Solution,

Universal Values and Human Ethics [Included in R23].

- **Ability Enhancement Course (AE):** Courses such as Communication skills, Modern Indian language. [Included in R23]
- **Co-curricular Course/ Activity (CC):** Based on course/activity such as Health and Wellness, Yoga education sports, and fitness, Cultural Activities, NSS/NCC and Fine/ Applied/ Visual/ Performing Arts [Included in R23]
- **Community Engagement Project (CP):** Project in core for social cause. [Included in R23].
- **Indian Knowledge System (IK):** Courses such as Indian Traditional Knowledge, Constitution of India. [Included in R23]
- **Compulsory Multidisciplinary Minor (MI):** The Minor courses may be from the different disciplines of the Engineering faculty, or they can be from different faculty altogether. [Included in R23]

2.3. Credit Assignment

Each course is assigned certain number of credits as given in Table 2.

Table 2: Course credits and contact hours per week

Contact period per week	CREDITS
1 Lecture hour	1
1 Tutorial hour	1
2 Laboratory hours	1
3 Internship hours	1

Notes:

For R18 and R22

1. VAC, VNT, MC and SBC are non_credit courses, i. e upon successful completion of these course, the course titles will appear on student's grade card
2. Student can opt for an OC available on SWAYAM portal (<https://swayam.gov.in/>) or NPTEL portal (<https://onlinecourses.nptel.ac.in/>) subject to approval from department course committee. After successful completion of the course, the course title can appear on the grade card of the student.
3. For OE courses, students with C.P.I. higher than 8.5 can opt for obtaining the credits by completing an OC (approved by department) offered through 12 week duration SWAYAM or NPTEL portal instead of completing the elective courses offered by department/institute. Upon successful completion of course, the score given on certificate issued by SWAYAM/NPTEL shall be converted to letter grade as per applicable examination regulation.

4. In R18 the student can earn 3 credits (optional) in place of OE of Semester VIII through internship by completing 5 weeks of continuous internship during vacation. The internship completed after Semester V and before the beginning of Semester VIII shall be considered.
5. Semester wise credit system for B. Tech. programmes shall be defined in the document “Credit System”

For R 23

1. All courses are credit courses.
2. The courses of types BS, ES, PC, PE, OE, MI, AE, IK, INT, PR, CP, VE, VS, SE and INt shall be evaluated for grades S, A, B, C, D, E, F and considered for CPI calculation
3. The course CC shall be graded as PASS or NO PASS and not considered for CPI calculation
4. Student can opt for an OC available on SWAYAM portal (<https://swayam.gov.in/>) or NPTEL portal (<https://onlinecourses.nptel.ac.in/>) subject to approval from department course committee. After successful completion of the course, the course title can appear on the grade card of the student.

3. DURATION OF THE PROGRAMMES

In R18 and R 22 all B. Tech. programmes are full time four years (Eight semesters) programmes.

In R23 Exit after first, second and third year is permitted by earning additional 8 credits through Skill Enhancement Courses and Internship/ Mini project as mentioned in credit system. Table 3 indicates the exit year, required credits and corresponding award.

Table3 : Exit year, Credits required for exit and Award

Exit Year	Credits Required for Exit	Award
First	52	UG Certificate
Second	96	UG Diploma
Third	140	B. Vocational
Fourth	176	B. Tech. in [Major] Engineering with Minor in [Multidisciplinary]

4. CHANGE OF PROGRAMME

Students admitted in first year are eligible to apply for change of branch after completing the first two semesters. Branch change at the end of first year shall be followed strictly as per merit based on CPI at the end of first year and as per rules framed by Competent Authority, Government of Maharashtra from time to time. Due to transfers, strength of a branch cannot be more than sanctioned strength. In R23, students are required to complete bridge courses for change of branch. The bridge courses shall be branch specific.

5. COURSE ENROLLMENT AND REGISTRATION

5.1. Each student, on admission shall be assigned to a Faculty Advisor/Mentor who shall counsel the student about the academic programme and the choice of courses for registration.

5.2. The eligible student shall get registered for all core and mandatory courses of the concerned semester. The student shall register for other than these courses as per the schedule prescribed by department.

5.2.1. PE and OE courses shall be run subject to minimum 5 students opting for the same. The maximum number of students who can register for PE and OE courses shall be decided based on available resources by Head/Heads of the Department.

5.2.2. A student needs to get approval from Department Course Committee to earn credits through internship against OE in Semester VIII.[W.r. t. R18]

5.3. Only those students shall be eligible for 5.2 who have:

5.3.1. Eligibility as per exam rules.

5.3.2. Not been debarred from registration of courses on any other specific ground.

5.3.3. Cleared all dues of the College, Hostel and Library including fines (if any) of all the previous semesters.

5.3.4. Made all the required advance payments towards the College and Hostel dues for the current semester.

5.4. A student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment points and appear for the End Semester Examinations.

6. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATION

6.1. College expects 100% attendance in all “theory and practical” classes. Assessment of Term work (TW)/ Practicals/ Laboratories, etc. will be done in a continuous manner by the way of assignments, tutorials, Quiz, mini project, presentations, oral, etc as defined in course curriculum of particular course. Points will be awarded for term work (TW)/ Practicals/ Laboratories etc. if and only if the student has been present for 75% or more for term work (TW)/ Practicals/ Laboratories etc. sessions. Absenteeism in any of the courses is to be reported by concerned course instructor to the Head of the Department regularly at the interval of two weeks and student and his/her parents to be informed accordingly. Concerned course instructor shall counsel the student having less attendance and record reasons of the absenteeism. Proper documentation of communication to the student and parents are to be maintained by concerned course instructor. Course instructor shall provide his remarks on the attendance of such student and eligibility of such student for the end semester and re-examination.

6.2. If a student secures lesser attendance in any course in the current semester due to medical reasons (hospitalization/accident/specific illness) or due to participation in the College/ University / State / National / International level Sports events/examinations with prior permission from the Course Instructor, Chairman Gymkhana/ Technical Event coordinator, Head of the Department, he/she shall be given exemption from the prescribed attendance requirement and the student shall be permitted to appear for the end semester examination of that course. In all such cases, the students should submit the required documents of his/her absence to Course instructor.

7. FACULTY ADVISOR/MENTOR

The Head of the Department shall assign a certain number of students to a teacher of the Department, who shall function as Faculty Advisor/Mentor throughout their programme. The mentor shall help students in planning their courses of study and for general advice on the academic programme, The department shall keep the mentorship records for each students.

The faculty advisor/Mentor are expected to

- Inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- Counsel regarding enrollment of the courses.
- Monitor the academic and general performance of the students including attendance and counsel them accordingly.

8. COURSE COMMITTEES

8.1. DEPARTMENT COURSE COMMITTEE

The Head of Department shall form Department Course Committee for monitoring and guiding academic activities within the department such as students course enrollment, enrollment for online courses, internship, enrollment for co-curricular course/activities etc. The committee shall consist of three faculty members from the department.

8.2. INDUSTRY CONSULTATION COMMITTEE(ICC)

The course content of new courses or modification in existing course content shall be reviewed by Industry Consultation Committee (ICC).

While conducting the review following points shall be noted.

- (a) NBA and OBE requirements such as CO/PO alignment, Bloom's taxonomy for assessment.
- (b) AICTE model curriculum as applicable from time to time.
- (c) Criteria prescribed by internationally recognized body for the program (e.g. ASME, ASCE, IEEE, etc.)
- (d) Inclusion of related online/SWAYAM course, if any, in reference section of course content.
- (e) NEP 2020 Implementation

9. ASSESSMENT PROCEDURES FOR AWARDING POINTS

- 9.1. Assessment procedure for awarding points shall be in conformance with “Credit System” for the academic programme.
- 9.2. Every course instructor shall submit action plan for the course he/she has been assigned by Head of the Department. The course instructor shall maintain an “ATTENDANCE AND ASSESSMENT RECORD” which consists of attendance marked in each theory / Laboratory/ Tutorial class, the assessment points and the record of class work. A copy of this record should be submitted to the Head of the Department. Further, the course instructor shall submit analysis of the results/ course outcomes of his/her course as required for NBA/NAAC purposes to the Head of the Department.
- 9.3. A student earning credit through internship needs to spend minimum 5 weeks in R 18 (3 credits) in industry or in research institute. A student shall be evaluated in three stages for total 100 points as shown in Table 4. The term work of 25 points shall be given based on his/her attendance (10 points) and internship report (15 points)

Table 4: Internship Evaluation:

Stages	No. of Weeks completed	Evaluation based on	Evaluator	Points
Stage1	R18: (1.5 week)	Report1 presentation	Faculty	20
Stage2	R18: (3 Weeks)	Report2 presentation	Faculty	20
Stage3	R18: (5 weeks)	Report3 presentation	Panel	60

10. ELIGIBILITY FOR THE AWARD OF DEGREE

A student shall be declared to be eligible for the award of the **B.Tech. Degree** provided the student has

- Successfully completed the course requirements and passed all the courses prescribed in all the eight semesters.
- Successfully completed the Mandatory course requirements.
- Successfully completed the Skill based Mandatory course requirements (Applicable for R22 only).
- Successfully earned the required number of total credits as specified in the Course Credit System.
- No disciplinary action pending against the student.
- Cleared all dues of the college.

11. Minor , Honors and Honors with research

In R18 the student shall opt for Minor or Honors certificate based on CPI criterion and shall get the same by earning additional 18 credits

In R22 the student shall opt for Minor or Honors degree based on CPI criterion and shall get the same by earning additional 18 credits

In R23 the student shall opt for Honors or Honors with Research or second Minor degree based on CPI criterion and shall get the same by earning additional 18 credits

The details of the same is available in the document "Minor , Honors and Honors with research".

12. REVISION AND INTERPRETATION OF ACADEMIC RULES AND REGULATIONS

The institute may from time to time revise, amend or change the Regulations, course plan and credit system of examinations through the Academic Council

NOTE:

1. In case of any ambiguity in the interpretation of rules and regulations of this document, the decision of Chairman of Academic Council shall be final.
2. For situations not covered under these rules & regulations, Chairman Academic Council shall take interim decisions on case to case basis.