

Bachelor of Engineering

Four Year Integrated Course

Academic Rules

1. Admission :

A candidate for admission to the four year degree programme for B.E. (Building & Construction Technology, Civil Engineering, Chemical Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Electronics & Computer Engineering, Electronics & Electrical Engineering, Information Technology, Mechanical Engineering, Mining Engineering, Production & Industrial Engineering must have passed (10+2) Senior Secondary (with English, Physics, Chemistry & Mathematics) of a board situated in state of Rajasthan or other examinations recognized as equivalent or higher thereto and selected through RPET or otherwise as per the procedure laid down by the University/State Govt. time to time.

2. Duration of course :

The course of study shall extend over a period of four years (eight semesters as an integrated course). A student shall follow the prescribed course as given in the teaching and examination scheme of the course to which he/she is admitted.

3. Examination Rule :

(a) There shall be a theory examination (Main Examination) at the end of each Semester in Building & Construction Technology, Civil Engineering, Chemical Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Electronics & Electrical Engineering, Electronics & Computer Engineering, Information Technology, Mechanical Engineering, Mining Engineering, Production & Industrial Engineering viz.,

At the end of First Semester	:	First B.E., First Semester Examination
At the end of Second Semester	:	First B.E., Second Semester Examination
At the end of Third Semester	:	Second B.E., Third Semester Examination
At the end of Fourth Semester	:	Second B.E., Fourth Semester Examination
At the end of Fifth Semester	:	Third B.E., Fifth Semester Examination
At the end of Sixth Semester	:	Third B.E., Sixth Semester Examination
At the end of Seventh Semester	:	Final B.E., Seventh Semester Examination
At the end of Eighth Semester	:	Final B.E., Eighth Semester Examination

(b) Practicals and Sessionals examinations of odd and even semester of First B.E., Second B.E., Third B.E. & Fourth B.E. will be held at the end of each semester of the year.

(c) A candidate will be given marksheets at the end of semester examination of I, II, III & IV year of the respective semester/year to indicate performance of the candidate as per the scheme of teaching and examination after the declaration of result.

4. Attendance Required:

The attendance requirement in the Faculty of Engineering & Architecture shall be, "In compliance of the decision of the Hon'ble High Court all students are required to fulfil the 75% attendance rule in each subject and there must be 75% attendance of the student before he/she could be permitted to appear in the examination".

(a) Condonation of shortage of attendance:

The shortage of attendance up to the limits specified below may be condoned on valid reasons:

- (i) Upto 6% in each subject plus 5 attendances in all aggregate of subject/papers may be condoned by the Vice-Chancellor on the recommendation of the Dean/Director/Principal for undergraduate students and on the recommendation of the Head of the Department for the Post-graduate students.
- (ii) The N.C.C./N.S.S. Cadets sent out to parades and camps and such students who are deputed by the University to take part in games, athletics or cultural activities may for- purposes of attendance be treated as present for the days of these absence in connection with the aforesaid activities and that period shall be added to their subject wise attendance.

5. BE First Year Examination:

- (a) A candidate who has attended a regular course of study in the Faculty of Engineering & Architecture for the first semester of first B.E. shall be eligible for appearing at the second semester examination of first B.E. for the B.E. degree which shall be common to all branches.
- (b) Every candidate appearing for the first semester of first B.E. examination shall be required to show a competent knowledge of the subjects as per examination and teaching scheme.
- (c) A candidate who has attended a regular course of study for the second semester of first B.E. and has appeared in the first semester examination shall be eligible for appearing at the second semester examination of first B.E. for the B.E. degree, which shall be common to all branches.
- (d) Every candidate appearing for the second semester of first B.E. examination shall be required to show a competent knowledge of the subjects as per examination and teaching scheme.

6. BE Second Year Examination:

- (a) The course of study for the Second B.E. Examination shall be separate for all branches of study.
A candidate who after passing I & II semester of I B.E. examination and has attended regular course of study in a particular branch of Engineering for the Third Semester second B.E. shall be eligible for appearing at the third semester examination of Second B.E. in that branch of study.
- (b) Every candidate appearing for the third semester of second B.E. examination shall be required to show a competent knowledge of the subject as per examination and teaching scheme.
- (c) A Candidate who has attended a regular course of study for the Fourth semester examination of second B.E. and has also appeared in the third semester examination of examination of second B.E. shall be eligible for appearing at the fourth semester examination of second B.E. in that branch of study.
- (d) Every candidate appearing for the fourth semester of second B.E. examination shall be required to show a competent knowledge of the subjects as per examination and teaching scheme.

7. BE Third Year Examination:

- (a) A candidate who after passing III & IV semester of second B.E. examination and has attended a regular courses of study in a particular branch of Engineering for the fifth semester examination of third B.E. in that branch of study.
- (b) Every candidate appearing for the fifth semester of third B.E. examination shall be required to show a competent knowledge of the subjects as per examination and teaching scheme.
- (c) A candidate who has attended a regular courses of study for the eighth semester examination of final B.E. and also has appeared in V semester examination of the third B.E. shall be eligible for appearing at the eighth semester examination of final B.E. in that branch of study.
- (d) Every candidate appearing for the eighth semester of final B.E. examination shall be required to show a competent knowledge of the subjects as per examination and teaching scheme.

8. BE Final Year Examination:

- (a) A candidate who after passing V and VI semester of third B.E. examination and has attended a regular courses of study in particular branch of Engineering for the seventh semester of final B.E. shall be eligible of appearing at the seventh semester examination of final B.E. in that branch of study.
- (b) Every candidate appearing for the seventh semester of final B.E. examination shall be required to show a competent knowledge o the subjects as per examination and teaching scheme.
- (c) A candidate who has attended regular course of study for the eighth semester of final B.E. and has also appeared in the seventh semester examination of final B.E. Shall be eligible for appearing at study.
- (d) Every candidate appearing for the eighth semester of final B.E. examination shall be required to show a competent knowledge of the subjects as per examination and teaching scheme.

9. Training after BE Second year and BE Third year:

Every candidate is required to undergo practical training in a workshop, factory, mines or engineering works/design office approved by the Dean of the Faculty for a period as mentioned below:

- (a) Building & Construction Technology after II and III Year 45+45=90 days
- (b) Civil Engineering after II and III Year 45+45=90 days
- (c) Chemical Engineering after II and III Year 45+45=90 days
- (d) Computer Science & Engineering after II and III Year 45+45=90 days
- (e) Electrical Engineering-after II and III Year 45+45=90 days
- (f) Electronics & Comm. Engineering after II and III Year 45+45=90 days
- (g) Electronics & Electrical Engineering after II and III Year 45+45=90 days
- (h) Electronics & Computer Engineering after II and III Year 45+45=90 days
- (i) Information Technology after II and III Year 45+45=90 days

(j) Mechanical Engineering after II and III Year	45+45=90 days
(k) Mining Engineering after II and III Year	45+45=90 days
(l) Production & Industrial Engineering after II and III Year	45+45=90 days

10. **Criteria to Pass and Allowed To Keep Term (ATKT)**

- (i) The candidate has to pass individually in all subjects of each semester from I to VIII semesters, as mentioned in the specification of corresponding teaching and examination scheme.
- (ii) For a candidate to pass in each semester he/she must obtain

For I and II semester examinations, if a candidate fails in not more than 3 units (excluding HUMANITIES & ENGLISH) in a semester examination, and for III to VII semester examinations, if a candidate fails in not more than 3 units in a semester examination, he/she shall be allowed to keep term (ATKT) in the next higher semester, subject to the provisions of clause 5(c),6(c),7(c), and 8(c). He/She shall appear in the units (s) along with regular candidates whenever examination that semester is held and pass in the unit (s) in which he/she has failed. For the purpose of the clause, each written paper and each practical and sessional shall be counted as a separate unit. For I B.E. examination, candidates failing in HUMANITIES & ENGLISH shall be awarded and additional ATKT.

NOTE: A candidate who is unable to appear at the semester examination in some/all written papers, Practical and sessionals due to any reason what so ever, shall be considered as having failed in those paper(s), Practical(s) and Sessional(s).

11. **Ex-student:**

- (i) For I and II semester examinations, if a candidate fails in more than 3 units (excluding HUMANITIES & ENGLISH) in a semester examination, and for III to VII semester examinations, if a candidate fails in more than 3 units in a semester examination, he/she shall be declared failed. Such candidate shall appear in that semester examination as Ex-student in all papers.
- (ii) The candidates, who are permitted to appear as ex-students shall be required to pay a fee of Rs. 500/- for doing each practical and sessional during the semester.
- (iii) A candidate who has passed all practicals and sessionals semester shall appear in the semester examination as Ex-student in all written papers. His practical and sessional marks of the semester shall be carried over.

12. **Change of Branch in Second Year:**

A candidate, promoted to II year BE, may be permitted to change his/her branch of study, from GAS course to GAS Course and from SFS Course to SFS Course only, Strictly on the base of merit secured in BE I year examination (First and Second Semester Examination taken together) depending upon the vacancies available in a particular branch of study which shall be determined as follows.

“The maximum strength of branch should not increase by more that 10 percent of the sanctioned strength and the minimum strength of a branch should not be decreased to less than 90 percent of the sanctioned strength.”

The sanctioned strength of a branch shall be reckoned to be the intake capacity of that branch, approved by AICTE.

13. Result Computation (Award of Grade and Grade Point Average)

(a) On the basis of percentage of obtained marks the process of result computation will be as follows, and followings will be awarded:

For every subject: Grade and Score Point

For every semester: Semester Grade Point Average (SGPA) up to precision of two digits after decimal.

For every semester: Cumulative Grade Point Average (CGPA) up to current semester, up to precision of two digits after decimal.

Step 1: For each subject the percentage of obtained marks will be converted into Grade as per Table I.

Percentage of Obtained Marks in Theory Subjects	Percentage of Obtained Marks in Practical Subjects	Grade
85≤per	85≤per	O
70≤per<85	70≤per<85	A+
60≤per<70	60≤per<70	A
55≤per<60	55≤per<60	B+
50≤per<55	50≤per<55	B
45≤per<50	NA	C
35≤per<45	NA	P
per<35	per<50	F
Absent	Absent	AB

Step 2: For each subject convert the Grade to Score Point as per Table II.

Grade	Score Points
O	10
A+	9
A	8
B+	7
B	6
C	5
P	4
F	0
AB	0

Step 3: Semester Grade Point Average (SGPA) of kth semester is

$$SGPA = \frac{\sum_{i=1}^n P_i * C_i}{\sum_{i=1}^n C_i}$$

Where P_i is Score Points in i^{th} subject, C_i is Credits of i^{th} subject, and n is total number of subjects in current k^{th} semester

Step 4: Cumulative Grade Point Average (CGPA) of k^{th} semester is

$$CGPA = \frac{\sum_{j=1}^m S_j * C_j}{\sum_{j=1}^m C_j}$$

Where S_j is SGPA of j^{th} semester, C_j is total Credits in j^{th} semester, and m is total number of semesters upto current k^{th} semester.

- (b) For determining merit position of the candidates at the final year level the SGPA obtained by them in III semester to VIII semester shall only be considered, termed as MGPA (Merit Grade Point Average). MGPA shall be calculated as below:

$$MGPA = \frac{\sum_{i=3}^8 S_i * C_i}{\sum_{i=3}^8 C_i}$$

Where S_i is SGPA of i^{th} semester, C_i is total Credits in i^{th} semester.

- (c) In case a candidate passes any subject in 2nd attempt or later one, the grade awarded shall not be higher than B+ in that subject.
- (d) Awarded SGPA and CGPA shall be recalculated if a candidate passes a subject or all subjects of any semester in 2nd or later attempt.
- (e) To calculate SGPA and CGPA, obtained marks for all subjects shall be considered irrespective of whether it is F grade (Failed or Absent) or any other grade.

14. Requirement of additional degree:

- (a) An engineering graduate of the Jai Narain Vyas University, Jodhpur who wish to qualify for an additional degree of Engineering of the University will be considered by a committee consisting of the Dean and the Head of the Department concerned.
- (b) He/She will be admitted in Second B.E. class of that branch. The written papers and practicals and sessionals which he/she has to appear at the various examinations in that branch will be decided by the above committee.
- (c) He /She will be awarded Grades and Grade Points on the basis of percentage of marks obtained by applying result computation method mentioned in section 13.
- (d) He/She has to undergo training after Second BE and Third BE as per Section 9.
- (e) He/She will not be awarded any position in the class.
- (f) Mention will be made in the certificate that he/she has qualified for the additional degree.

15. **Medium of Instruction and Examination**

The medium of Instructions and Examination in all Engineering Examinations of Theory/Practical and Sessional shall continue to be English as hitherto.

16. **Make up Examination for VIII Semester:**

- (a) There shall be a Make up Examination for the VIII Semester only for those candidates, who are eligible for **ATKT in VIII semester**, at a suitable interval of time after declaration of the result of the VIII Semester Examination. Candidates, who fail or are unable to appear at this examination, shall appear in the immediate corresponding ensuring Semester Examination.
- (b) Candidates who have failed in the Final B.E. Examination but have passed in seminar, project, practical training and tour, and obtained SGPA 5.00 or above in corresponding semester, shall be exempted from re-examination in project, practical training and tour and shall be required to pass the examination in rest of the subjects only.
- (c) A candidate who passes in a limited number of Theory papers/Practical and Sessional /Project in VIII Semester Examination shall be awarded division with a mention of "Pass in more than on attempt" on the marksheet with asterisks on the respective Theory papers/ Practical and Sessional /Project.

17. **On changing Teaching and Examination Scheme or contents of the offered subjects:**

- (a) In case a candidate fails in any semester, and appears as ex-student, he will be given two attempts to pass through OLD SCHEME. Otherwise he will be transferred to NEW SCHEME offered by the department currently.
- (b) If a candidate joins any semester as regular student, in all cases he/she has to study as per the currently offered scheme.
- (c) In case a candidate fails in some of the subjects in a semester (ATKT), he will be given only two chances to pass through OLD SCHEME. Otherwise he will be transferred to NEW SCHEME offered by the department currently.

18. **For lateral entry candidates admitted to Second B.E. (all branches):**

- (a) The diploma passed candidates admitted in the Second B.E. (all branches) shall be required to undergo a regular course of study in Special Mathematics III and IV semesters of II B.E. along with other theory units of the semester examinations. For a candidate to pass in Special Mathematics examination the combined marks obtained in III & IV Semester shall be counted. Candidate failing in special mathematics shall be awarded one additional ATKT.
- (b) The B Sc Passed candidates admitted to Second BE (all branches) will have to clear deficiencies of engineering subjects (theory and practical of B.E. Ist year) as mentioned below :-

Theory Papers

CE 102 A : CIVIL ENGINEERING

SE 104 A: ENGINEERING MECHANICS

EE 105 A: BASIC ELECTRICAL ENGINEERING

CSE 151 A : INTRODUCTION OF COMPUTING

ME 154 A : ELEMENTS OF MECHANICAL ENGINEERING

ECE 155 A : BASIC ELECTRONICS

Practicals and Sessionals

CE 121B: ENGG. GRAPHICS

SE 123 B : ENGINEERING MECHANICS LAB

CE 124 B: CIVIL ENGINEERING LAB

ME 125 B: WORKSHOP PRACTICE – I

EE 126 B: BASIC ELECTRICAL LAB

ME 171 B : MACHINE DRAWING

ME 173 B : MECHANICAL LAB

ME 175 B : WOTKSHOP PRACTICE - II

ECE 176 B : BASIC ELECTRONICS LAB

CSE 177 B : COMPUTER LAB