

**Vinoba Bhave University, Hazaribag  
Hazaribag – 825301 ( Jharkhand )**

**REGULATIONS  
FOR THE UNDER – GRADUATE PROGRAMMES  
IN  
ENGINEERING COURSES LEADING TO B. TECH DEGREE**

**Preamble**

1. The regulations herein specified apply to undergraduate programmes offered by the Vinoba Bhave University, Hazaribag, hereinafter referred to as the University, Department, wherever mentioned refers to a Department of an institute, Academic section wherever mentioned refers to the Academic section of an institute.
2. The undergraduate programmes covered by these Regulations are correlated courses of study, the successful completion of which would enable the participants of the programmes to qualify for the award of B. Tech. Degree.
3. A participant of the programme is a student who is duly admitted to an institute of the University and who has registered himself / herself for a course of study and attends the same.

**Time scale for academic activity**

4. The basic units of time for academic activity for the undergraduate programmes shall be a semester, which would normally be of 16 weeks (Autumn Semester-July to December and Spring Semester- January to June) duration.. A basic contact period is one in which a teacher engages the students for a duration of 50 minutes.
5. If circumstances warrant, the institute may schedule a summer programme during long vacation of the institute. There will be no formal classes in the summer programme. (The eligibility to register in the summer programme shall be restricted to clause 27 of this regulation. The examination / evaluations in the summer programme will be conducted as per clause 20 and appendix 'A')

**Courses of Study**

6. The University shall offer Courses of studies during a semester indicated mainly from consideration of minimum enrollment and facilities available .The competent authority comprising of the Govt. / University / Institute shall have the right to cancel any or all the course of study if the above requirements are not satisfied .

### **Eligibility for Participants in the Undergraduate Programmes**

7. The minimum qualification, which the students should possess for participation in the undergraduate programme, shall be as laid down under the appropriate courses of study specified hereinafter.

### **Registration for Courses of Study**

8. Every participant of the undergraduate programmes, shall first register himself / herself for the courses of study he / she intends pursuing provided he / she possesses the minimum qualifications as laid down and his / her plan is approved by the Course Co-ordinator in the respective department as provided for in clause 11 and consistent with the academic loading as stipulated in clause 30, 31, 32 hereinafter.
9. A participant of the undergraduate programme shall be permitted to make changes in his / her registration for the courses of the study in semester, if he / she so desires, subject to the recommendation of his / her Course Co-ordinator in the respective department and approval of the concerned Head of the department within 15 days of the commencement of the semester. In all these cases, the academic loading shall be in conformity with clauses 30 to 32 specified hereinafter.
10. Fees payable by the participants including fees payable for examination shall be as laid down in the Administrative instructions issued from time to time by the University /Institute for the purpose.

### **Orientation of Programmes**

11. The undergraduate programmes detailed in these Regulations aim to provide the participants with a course of studies based on individual needs and flexible curriculum requirements. However, to ensure that chosen plan of studies is a correlated undergraduate programme, it shall be subjected to the scrutiny of faculty member, who will be designated as the Course Co-ordinator to the participants, and due approval of the Head of the concerned department. There shall be a Course Co-ordinator in the respective department for participants of the undergraduate programmes.

### **Auditing of Courses**

12. All the courses offered in the undergraduate programme will be open for audit in the spirit of offering and opportunity for continuing education for the participants who wish to refresh or update their knowledge. Audited courses shall neither count for academic credit nor shall there be any examination requirements. Participants shall be eligible to participate in the course(s) offered on payment of prescribed fees and due registration.

## **Measure of Academic Achievement**

13. The academic achievement of the participating students in the undergraduate programme shall be measured in terms of credits earned and grades obtained. Norms for the evaluation of credits earned shall be as specified hereinafter under the appropriate academic activity . The overall performance of the student in a semester examination shall be evaluated in terms of grade point average as specified later.

## **Scheme of Instruction**

14. The scheme of instruction in the undergraduate programme shall be of the following forms of academic activity.
  - a. Theory
  - b. Sessional

### **Theory**

15. A theory shall involve concepts, fundamental ideas, and techniques well laid out in text books or open literature and which can be grasped through lectures, tutorials and home- work.
16. A theory course with about 56 contact periods in a semester normally including tutorials shall enable participating students to earn 4 credits provided he / she fulfills the attendance and grade requirements as specified.

### **Sessional**

17. The following types of academic works will be covered in sessional
  - a. Laboratory Experiments,
  - b. Design Exercise,
  - c. Project,
  - d. Any other academic work, the purpose of which would be to train the student by practice, repeated use and hands on experience.
18. A Sessional course of 3 contact periods during a week and 42 contact periods during a semester shall enable a participating student to earn 2 academic credit – provided that he / she fulfills the attendance and grade requirements as specified hereinafter.

### **Attendance Requirement**

19. In each course a minimum attendance of 75 percent is required. Those who do not fulfill the requirement in any course shall be automatically awarded F grade for the course. Any further step or action to be taken will be decided after examining the reasons for the absence.

## Examination Assessment

20. Each course will be evaluated for a maximum of 100 marks per course through mid semester examination for theory type of courses / progressive assessment for laboratory or sessional type of course and End semester examinations in the regular semester. However, in the Summer programme, each course will be evaluated for a maximum of 100 marks per 4 credit through a single examination. The mode of examination and the method of evaluation will be as given in Appendix A and may be modified by the university.

## Grading of Performance in Examinations

21 Based on the results of the examinations, the performance of the students shall be .. graded as under

Grade	Grade Point
A+	10
A	9
B+	8
B	7
C+	6
C	5
D	4
F	0

The method of converting the percentage of marks to letter grades will be as given in appendix B..

- 22 To earn academic credit in a subject, a student should get a grading of 'C', or above.
- 23 Where a prerequisite is specified for a course, a grading of D , or above shall be deemed as satisfying the prerequisite requirement.
- 24 If a student gets a grade point average of less than 4.5, he/she be placed under PROBATION, as provided in clause 26 below.

## Records of Academic Progress

25 (i) Semester Grade point Average (SGPA ) shall be calculated as under:

$$SGPA = \frac{\sum_{\text{semester}} (\text{Course credits} \times \text{Grade point}) \text{ for all courses}}{\sum_{\text{semester}} (\text{Course credits})}$$

- 25 (ii) The academic progress of the students in each semester shall be maintained in a grade card or transcript, wherein the grades awarded to students as well as the points secured by the students in the examinations, shall be entered. The transcript given to the students at the end of their complete undergraduate program shall indicate the cumulative grade point average (CGPA). Which shall be calculated as follows :

$$\text{CGPA} = \frac{\sum_{\text{All Sem}}(\text{Course credits} \times \text{Grade point}) \text{ for all points}}{\sum_{\text{All Sem}} (\text{Course credits})}$$

The CGPA shall be rounded off to 2<sup>nd</sup> place of decimal. While calculating CGPA, the 'D' shall be replaced by the better grade earned in these course in the subsequent Semester/ Summer Programme. Further, any credits in excess of 252 for B.Tech. shall not be counted for calculating CGPA.

### **Placing of student on PROBATION**

- 26 If a student gets a grade point average of less than 4.5 in a semester examination, he/she shall be placed on probation and allowed to register for the courses offered in the next semester. The academic loading of the student on probation shall however, be reduced to 21 credits to 25 credits for B.Tech. If a student is placed on PROBATION because of his/her performance in first semester and does not get a Grade Point Average equal to or greater than 5.0 in the next semester examination, he/she shall be DROPPED from the programme.

### **Facilities for failed students**

- 27 If a student fails in a course, he / she may be allowed to register for that course in Subsequent semesters (or summer programme) provided course is offered in the subsequent semester (or summer programme). The summer programme will be scheduled during the long Institute vacations after completion of regular semester. A Student is permitted to register for courses scheduled in the summer programme, only if, he/she had registered for these courses earlier in the semesters and wishes to repeat them because of failure in the courses i.e. D grade except the student with F. The number of credits a candidate will be allowed to register in a summer programme will not exceed eight and will be as decided by his/her Course co-ordinator and approved by the Head of the Department.
- 28 a) Student who have been duly registered and exposed to all the 252 credits for B.Tech. but have not completed successfully all the course after the 8<sup>th</sup> semester for B.Tech. may be permitted to appear at Special Examination in the courses in which they have got 'D' or 'F' grade in the regular /summer semesters programmes. The academic loading in special examination shall be as that of regular semester.
- b) The Special Examination may be arranged after two weeks of the declaration of result of the examination of 252 credits for B.Tech degree..

- c) The Special Examination will be for maximum marks for the course, i.e. 50 Marks for a laboratory course and 100 marks for a theory course.
- d) In the Special Examination the successful candidates will be entitled for the Award of 'C' Grade only.
- e) If a student again gets 'D' or 'F' Grade at the Special Examination in any Course he/she can clear it by registering the course in a regular semester, provided he/she has not completed 14 semesters for B.TECH or Summer programme/next Special Examination as a non-collegiate and non residential candidate.
- f) Students registered for special examination will be considered as non-Collegiate and not residential.
- g) Registration fee and examination fee for the non collegiate student will be Same as for regular students.

### **Graduation Requirement**

- 29. a) In order to qualify for B.Tech. degree a student must earn a minimum of 252 credits.
- b) The credits earned by an engineering student must conform to the minimum numbers specified by the courses of study in Engineering with reference to the following ( Appendix C ).
  - 1) Theory type credits
  - 2) Sessional type credits
  - 3) Project sessional type of credits
  - 4) Core courses for engineering
  - 5) Departmental core
  - 6) Sciences
  - 7) Language, Humanities, social sciences and Management
  - 8) General Proficiency
- c) i) That at the time of registration to 3 rd semester (Before registration to 3rd semester) a review of the performance of all undergraduate students who have not cleared (not obtained Grade C or above) all the prescribed credits of the first- two semesters i.e. 66 credits including 2 credits for General Proficiency for B.Tech is to be made by the academic section whereupon:
  - ii) The students having back-log of more than 2 theory (each of 4 credits ) and 2 laboratory /sessional (each of 2 credits) at the

time of registration to 3rd semester (Before registration of 3<sup>rd</sup> semester) shall not be permitted to register in the courses of 3rd and higher semesters until they have cleared the said backlog and /or reduced the arrears to 2 theory (each of 4 credits) and 2 laboratory / sessional (each of 2 credits) or less within next two consecutive semester.

- iii) The students who will not be able to fulfill the above requirement will be DROPPED from the programme.
  - iv) At the time of registration to Vth semester (Before registration of Vth semester ) further review of performance of all the undergraduate students, who have not cleared all the prescribed courses upto 4<sup>th</sup> semester i.e. 132 credits, would be made by the academic section.
  - v) The students having a back log of more than 50 credits including sessional type of courses at the time of registration to V semester (Before registration for V semester) shall not be permitted to register in the courses of V or higher semester until they have cleared the said back –log and / or reduced the arrears to 50 credits within next two semesters failing which he / she will be terminated from the programme.
  - vi) A student's registration may be terminated at the end of 3<sup>rd</sup> year, 4<sup>th</sup> year, 5<sup>th</sup> year or 6<sup>th</sup> year if he / she fails to earn atleast 100 , 144 , 180 or 216 credits, respectively. However, the student may appeal against termination within the first week of the next semester to the academic section for a final decision which will be a binding on the concerned student.
  - vii) If at any stage the number of credits required is more than  $34 * N$  where N is the number of semesters left ( out of a maximum 14 semesters allowed for B. Tech degree ) for the concerned student , the registration would be terminated without any opportunity to appeal.
- d) The student must complete all the non –credit requirements as specified by the institute/university from time to time.
- e) The student must complete the requirements within the maximum time allowed as specified in clause 33.
- f) For the purpose of awarding class, the CGPA shall be converted to percentage marks using the following formula :

Percentage marks = (CGPA \* 10).

Thus CLASS shall be awarded on the basis of the following score of CGPA:

- i) Ist class with Distn . = CGPA of 7.50 and above
- ii) Ist class = CGPA of 6.00 to 7.49
- iii) IInd class = CGPA of 4. 50 to 5.99

### **Academic loading of students**

- 30. The academic loading of under graduate programme shall be as minimum of 21 credits and maximum of 34 credits per semester for B.Tech.
- 31. The academic Loading of student on PROBATION, shall be governed by clause 26 above.
- 32. The academic Loading of a student during a summer programme shall be as in Cause 27.
- 33. The maximum duration for completion of the programme shall be 14 semester for B.Tech.. excluding summer programmes. A student in whose case it is apparent, from his / her academic record that he / she will not be able to qualify for the degree within the limits of time specified above, will be dropped from the programme.
- 34. A student registered in a semester may be permitted to withdraw from the academic programme for a semester for reasons of illness for a long period or other valid grounds. Normally, a student will be permitted to discontinue temporarily from the degree programme only for a continuous period of two consecutive semesters or for a maximum of three regular semesters during his entire academic programme. However, the total duration in no case shall exceed 14 semesters.

### **Programme offered**

35. Subject to the Regulations detailed above, and subject to the approval of the institute / university / Govt. , the courses of study enumerated here under shall be offered by the institutes, subject to the conditions in clause 6 above. Specific Programmes may impose additional requirements on the participants.

### **Student Discipline**

36. Every student is required to observe a polite and disciplined behaviour both inside and outside the campus and should not indulge in any activity which would tend to bring down the prestige of the institute or disturb the peaceful and congenial environment of the campus.
37. An act of indiscipline on the part of a student may result into adequate discredit and a mention in his / her academic grade card and / or transcript.

### **\* Note**

**The university in consultation with the institutes shall have the right to change / modify any regulation or part thereof in the academic interest of the students.**

APPENDIX 'A'  
(Reference clause 20)

**Mode and Method of evaluation**

**A. Regular Semester Examination:**

**Theory course**

Mid semester Examination – Teacher's assessment 20% of 90 minutes duration examination.

Class Test - 10% marks.

End semester Examination – 70% marks and three hours duration examination.  
The mid semester examination would be held after approximately 07 weeks from the beginning of the semester and course syllabus shall be first half of a total syllabus.

**Sessional course**

Progressive evaluation based on day to day performance – 60% marks  
End semester practical examination / viva- voice / written test – 40% marks

**B. Summer Programme Examination:**

**Theory course**

There would be a single examination of 100 marks for a 4 credit course and duration of the examination should be 3 hours. The question paper will be in two parts. Part 'A' will be of 30% marks. The questions in this part will be from the first half of the syllabus and latest question bank/ tutorial sheet supplied to the students in the preceding regular semester. Part 'B' will be of 70% marks and questions will be uniformly distributed through the total syllabus.

**Sessional course**

The sessional would be evaluated for 100% marks by the respective Departments through practical examination / viva voice / written test covering the total syllabus.

APPENDIX –B  
(Reference clause 21)

**Method of converting percentage marks to grades**

The absolute grading system will be used as under:

<b>% of marks obtained</b>	<b>Letter Grade</b>
90% and above	A+
80% to 89%	A
70 % to 79%	B+
60% to 69%	B
50% to 59%	C+
35% to 49%	C
30% to 34%	D
< 30%	F

**APPENDIX –C**  
(Reference Clause 29)

The distribution of units offered in different courses of B.Tech. shall be according to the following criteria which shall be the minimum requirement for the degree programme.

**Criterion – I**

Classification according to Theory / Sessional / Practical / Projects etc.

(a) Theory Subjects	176 credits
(b) Sessional / Practicals	52 credits
(c) Project	10 credits
(d) Tour, Training and Colloquium	2 credits
(e) General Proficiency	<u>12 credits</u>

TOTAL: 252 credits

**Criterion – II**

Classification according to Sciences, Core and Departmental Engineering subjects etc.

(a) Science	42 credits
(b) Language / Social Science / Management	12 credits
(c) Engineering (core subjects)	36 credits
(d) Departmental subjects	48 credits
(e) Tour, Training and Colloquium	2 credits
(f) General Proficiency	<u>12 credits</u>

TOTAL: 252 credits



**B.I.T. SINDRI**

(Department of Science & Technology, Govt. of Jharkhand, Ranchi)  
P.O. Sindri Institute, Dhanbad-828123

---

No. \_\_\_\_\_/

Dated: \_\_\_\_\_2007

Telephone No.0326-2350495 (O, R)  
Fax-0326-2350729

To,

The Vice-Chancellor  
Vinoba Bhave University  
Hazaribag

Sub: Corrigendum to already approved U.G regulation.

Sir,

In Page No. 10, Appendix-A, Mid Semester Examination-30% marks should be read as Teacher assessment-20% and Class Test-10% as mentioned in Structure. This is for your kind information with a request for inclusion.

Thanking you,

Yours faithfully,

Director  
B.I.T. Sindri



## **B.I.T. SINDRI**

(Department of Science & Technology, Govt. of Jharkhand, Ranchi)  
P.O. Sindri Institute, Dhanbad-828123

---

No. \_\_\_\_\_/

Dated: \_\_\_\_\_2007

Telephone No.0326-2350495 (O, R)  
Fax-0326-2350729

To,

The Vice-Chancellor  
Vinoba Bhave University  
Hazaribag

Sub: Amendment in already approved U.G regulations.

Sir,

The experiences with the Semester System for B. Tech Course introduced since 2006-07 emphasizes the need for certain amendments to be made in the U.G. regulations from the next semester examinations. These are:

1. The Grade 'D' to be deleted.
2. The clauses / lines (part of certain clauses) concerning Grade 'D' to be deleted.  
Referred Clauses and part thereof are 20, 21, 23, 25, 27, 28(a), (e) and 33.  
Appendix – A (Part B i.e. Summer Programme Examination) and the line related to Grade 'D' In Appendix – B also to be deleted. Thus , F grade will be awarded to those securing less than 35 ( C Grade ).

Thanking you,

Yours faithfully,

Sd/- Prof. S. K. Singh  
Director , B.I.T. Sindri  
cum  
Dean Faculty of Engineering  
V.B.U. Hazribagh

Note: The decision has already been taken at the Examination Board meeting of V.B.U .Hazribagh, for implementation of abolishing D Grade from all semester examinations of 2008 . Also, there will not be any SUMMER or WINTER programme.

**Amendment in already approved U.G regulations.**

The experiences with the Semester System for B. Tech Course introduced since 2006-07 emphasizes the need for certain amendments to be made in the U.G. regulations from the next semester examinations. These are:

1. The Grade 'D' to be deleted.
2. The clauses / lines (part of certain clauses) concerning Grade 'D' to be deleted.  
Referred Clauses and part thereof are 20, 21, 23, 25, 27, 28(a), (e) and 33.  
Appendix – A (Part B i.e. Summer Programme Examination) and the line related to Grade 'D' In Appendix – B also to be deleted.

Director , B.I.T. Sindri  
cum  
Dean Faculty of Engineering  
V.B.U. Hazribagh