

UG REGULATIONS

(2008 onward)

Regulations For The Under-Graduate Programmes



**BIRLA INSTITUTE OF TECHNOLOGY
(A DEEMED UNIVERSITY)
MESRA, RANCHI, JHARKHAND
INDIA**

REGULATIONS FOR THE UNDER-GRADUATE PROGRAMMES

1. PREAMBLE:

- 1.1 The regulation herein specified apply to both FULL-TIME, PART-TIME, Collaborative and Sponsored Under-Graduate Programmes, offered by the Birla Institute Of Technology, hereinafter, referred to as the institute. Department, Centre, Collaborative Institute wherever mentioned refers to a Department / Extension Centre of Institute/Collaborating Institute with whom MOU/ Agreement has been signed by the Institute. The Extension center(s), Collaborating Institute may be located anywhere in India or outside the Country.
- 1.2 The regulations herein specified apply to undergraduate programmes offered by the Birla Institute of Technology, hereinafter referred to as the Institute. Department, whenever mentioned refers to a Department of the Institute.
- 1.3 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 a B.E./ B.Arc/ B.Pharm/ BHMCT/ B.Tech/ BCA/ BBA/ BBM/ B.Com/ B.Sc Degree.
- 1.4 A participant of the programme is a student who is duly admitted to the institute and who has registered himself/herself for a course of study and attends the same.

2. TIME SCALE FOR ACADEMIC ACTIVITY:

- 2.1 The basic unit of time for academic activity for the undergraduates programmes shall be a Semester which would normally be of 16 weeks durations. There shall be two normal semesters in an academic year (Monsoon Semester – July to December and Spring Semester – January to June). A basic contact period is one in which a teacher engages the students for a minimum durations of 45 to 50 minutes, depending on the season of the year.
- 2.2 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 18 of these regulations. The examination / evaluations in the summer programme will be conducted as per clause 20 and appendix 'A'.

3. OFFERING OF COURSES OF STUDY:

- 3.1 The institute shall offer courses of study during a semester indicated mainly from considerations of minimum enrollment and facilities available. The Institute shall have the right to cancel any or all the courses of study if the above requirements are not satisfied.

4. ELIGIBILITY FOR PARTICIPATION IN THE UNDERGRADUATE PROGRAMMES:

- 4.1 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.

5. REGISTRATION FOR COURSES OF STUDY:

5.1 Every participant of the undergraduate programme, shall first register himself/herself for the Courses of study he/she intends to pursue provided that he/she possesses the minimum qualifications as laid down and his/her plan is approved by the Adviser as provided in Clause 6 and consistent with the Academic loading as stipulated in Clauses 20.1, 20.2 and 20.3 hereinafter.

5.2 Participant of the under-graduate programme shall be permitted to make change in his/her registration for the courses of study in a semester, if he/she so desires, and subject to the approval of his/her Adviser, **within 15 days** of the commencement of the semester. In all these cases, the academic loading shall be in conformity with clauses 20.1 to 20.3 specified hereinafter.

5.3 Fees payable by the participants, including fees payable for examinations shall be as laid down in the Administrative instructions issued from time to time by the Institute for the purpose.

6. ORIENTATION OF PROGRAMMES:

6.1 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 the chosen plan of studies is a correlated under-graduate programme, it shall be subject to the scrutiny and approval of faculty member, who will be designated as an Adviser to the participant. There shall be an Adviser for each participant of the under-graduate programmes.

7. AUDITING OF COURSES:

7.1 All the courses offered in the undergraduate programme will be open for audit in the spirit of offering an opportunity for continuing education for the participants who wish to refresh or update their knowledge. Audited courses shall not count for academic credit, nor shall there be any examination requirements. Those with a minimum qualifications of I.Sc or equivalent in-any subject, shall be eligible for the course offered on payment of prescribed fees.

8. MEASURE OF ACADEMIC ACHIEVEMENT:

8.1 The academic achievement of the participants in the undergraduate programmes shall be measured in terms of units earned and grades obtained. Norms for the evaluation of units earned shall be as specified hereinafter under the appropriate academic activity. The overall performance of the student in a semester examination shall be measured in terms of grade point average as specified later.

9. SCHEME OF INSTRUCTION:

9.1 The scheme of instruction in the under-graduate programme shall be of the following forms of academic activity.

(a) Theory

(b) Sessionals

10. THEORY

10.1 A theory type of academic activity 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.

10.2 A theory type of course with about 45 contact periods in a semester shall enable participating student to earn one unit of academic credit provided that he/she fulfils the attendance and grade requirements as specified hereinafter.

11. SESSIONALS:

11.1 The following types of academic work will be covered:

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, hands on experience.

11.2 A sessional course of 3-4 contact periods during a week and 45-60 contact periods during a semester shall enable a participating student to earn half a unit of academic credit-provided that he/she fulfils the attendance and grade requirements as specified hereinafter.

12. ATTENDANCE REQUIREMENT:

12.1 It is expected that a student should have 100% attendance in all the courses registered in a semester. However relaxation in the attendance up to a maximum of 25% may be granted in special circumstances after examining the reason for the absence provided he/ she has applied in advance/ to the appropriate authority through head of the concerned department. Students having more than 25% absence in a course under any circumstances, would be awarded F* in that course.

12.2 The credit for the attendance in Theory type courses will be calculated as follows:

$$\% \text{ attendance} = \frac{\text{Number of classes attended in a course}}{\text{Total number of classes taken in that course}} \times 100$$

and the weightage of attendance would be as:

| <u>Attendance %</u> | <u>Weightage</u> |
|---------------------|------------------|
| 80 – 84 % | 01 |
| 85 – 89 % | 02 |
| 90 – 94 % | 03 |
| 95 – 99 % | 04 |
| 100 % | 05 |

12.3 Attendance will be counted from the date of commencement of the classes notified by the Institute in each semester.

12.4 If a passing out student having maximum of 4 units backlog which include F* / with or without registered back papers for which his/ her completion of degree programme get delayed, the Institute may arrange the classes for these courses during the long vacation of the Institute i.e. in between June & July. This semester will be treated as a regular semester, and hence all rules & regulation of normal semester will be applicable. However, such students will not be allowed to participate in summer programme if running during this period.

13. EXAMINATION ASSESSMENT:

13.1 Each theory type course will be evaluated for a maximum of 100 marks per unit through an **Assignment, Mid Semester examination** and an **End Semester examination** in the normal semester. All laboratory or sessional type courses will have a progressive evaluation and an End Semester Examination. However, in the summer programme, each course will be

evaluated for a maximum of 100 marks per unit through a single examination. The mode of examination and the method of evaluation is given in Appendix 'A' and may be modified by Technical Council as and when required.

13.2 If a student does not appear in end semester examination in theory/ sessional, he/ she will be awarded maximum of grade D, irrespective of actual performance of the student in such course(s).

14. GRADING OF PERFORMANCE IN EXAMINATION:

14.1 Based on the result of the examinations, the performance of the student shall be graded as under

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

The method of converting the percentage of marks to letter grade will be, for the present, as given in appendix B and may be modified by the technical council from time to time.

14.2 To earn academic credit in a subject, a student should get a grading of 'C' or above.

14.3 Where prerequisite is specified for a course, a grading 'D' or above shall be deemed as satisfying the prerequisite requirement.

14.4 If a student gets a grade point average of less than 4.5 he/ she be placed under 'PROBATION' as provided in Clause 16 below. Grade Point Average (GPA) shall be calculated as under:

$$\text{GPA} = \frac{\text{Total No of Grade Points Secured in a Semester Exam.}}{\text{Total No of Unit Registered in the Semester}}$$

15. RECORD OF ACADEMIC PROGRESS:

15.1 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 under-graduate shall indicate the Cumulative Grade Point Average (CGPA). Which shall be calculated as follows

$$\text{CGPA} = \frac{\text{Total Points Earned in Required No. of Units}}{\text{Total Units Required to Complete the Programme}}$$

The CGPA shall be rounded off to 2nd place of decimal. While calculating CGPA, the grades 'D' and 'F' shall be replaced by the better grade earned in these course in the subsequent Semester/Summer Programme. Further, any unit in excess of 66 for BE, B. Pharm. &

BHMCT, 82 units for B. Arch., and 42 units for BBA, BBM, BCA, B.Com. and B.Sc. shall not be counted for calculating CGPA. The excess units dropped shall be those having minimum score by maintaining the criteria given in Appendix C.

16. PLACING OF STUDENT ON PROBATION:

16.1 (a) 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 course offered in the next semester. The academic loading of the student on probation shall, however, be reduced to 6 to 7 units for B.E., B.Pharm., BHMCT, B.Arch., and 5 to 6 units for BCA, BBA, BBM, B.Com. and B.Sc. etc.

17. DROPPING THE STUDENT FROM THE PROGRAMME:

17.1 If a student is placed on PROBATION because of his/her performance in 1st two semesters, he/she will be permitted to appear for a maximum of 4 units of his/her backlog in the summer programme. His improved GPA substituting the grades as obtained in the summer programme for the appeared courses will be calculated. If his/her GPA remains less than 4.5 or 5 in the first and second semester respectively he/she shall be DROPPED from the programme.

18. FACILITIES FOR FAILED STUDENTS:

18.1 If a student fails in a course he/she may be allowed to register for that course in subsequent semesters or summer programme, provided that course is offered in the subsequent semester or summer programme. The summer programme will be scheduled during the long Institute vacations after the 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 (obtained D or F grade) except the student with F*. The number of units a candidate will be allowed to register in a summer programme will not exceed **four** and will be as decided by his/her adviser and approved by the Head of the Department.

18.2

- a) Students who have been duly registered and exposed to required number of 66 units for B.E./B.H.M.C.T./B.Pharm, 82 units for B.Arch.,and 42 units of BBA,BBM,BCA,B.Com. B.Sc Degree course respectively but have not completed successfully all the courses after the 8th semester for BE/B.Pharm/BHMCT, 10th semester for B.Arch and 6th semester of BBA, BBM, BCA, B.Com, B.Sc Programme may be permitted to appear at special (Non Collegiate) examination in the courses in which they have got 'D' or 'F' grade in the regular semester programme **provided that such number of courses is equal to or less than a regular semester load.** The academic loading in special examination shall be as that of the regular semester.
- b) The special examination may be arranged after two weeks of the declaration of result of the examination of 66 units for B.E./B/Pharm/ & BHMCT,82 units for B.Arch. and 42 units for BBA,BBM,BCA,B.Com, B.Sc.
- c) **Students having backlog maximum of 9.0 units for B.E.,B.Phram,B.Arch and BHMCT and backlog maximum of 8.0 units for BBA,BBM,BCA,B.Com, and B.Sc programme are eligible for registration in special (Non-Collegiate) examination only.**

- d) **Students having more than 9.0 units of registered backlog for BE,B.Pharm,B.Arch and B.Sc programme and more than 8.0 units of registered backlog for BBA, BBM, BCA, B.Com, and B.Sc programme are required to register in a regular semester only.**
- e) The Special examination will be for maximum marks prescribed for the course.
- f) In the special examination the successful candidates will be entitled for the award of 'C' grade only.
- g) If a student again gets 'D' or 'F' Grade in 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 semester for B.E./B.Pharm/BHMCT or 16 Semester of B.Arch or 11 semesters for BBA,BBM,BCA,B.Com., and B.Sc)/ Summer Programme/next special examination as a non-collegiate and non residential candidate.
- h) Students registered for special examination will be considered as non collegiate and non residential.
- i) Registration fee and examination fee for the Non Collegiate students will be same as that for regular students.

18.3 PROVISION FOR SPECIAL SEMESTER

If a Undergraduate students is left with maximum of 4.0 units back log including subjects in which he/she was awarded F* /unregistered registered subjects, if any, which may cause him / her a delay in completing the degree programme or eligibility to appear in a special (Non Collegiate) examination (Ref. Clause 18.2 (a) of Rules & Regulations) the Institute may arrange classes for such courses during the long vacations of the institute normally during June / July. The classes held during the long vacations will constitute a Special Semester which will be governed by the rules and regulations of any normal semester.

The student, registering for this Special Semester, would not be eligible to register in the concurrent Summer Programme

19. GRADUATION REQUIREMENTS:

- 19.1 a) In order to qualify for B.E. or B.Pharm. degree a student must earn a minimum of 66 units respectively (grade C or better), including 2 units for NCC / NSS /PT & Games/ Creative Arts. For B. Arch. Degree a student must earn a minimum of 82units (Grade C or better) including 2 units for NCC/ NSS/PT & Games. For BBA, BBM, BCA, B.Com. and B.Sc. Degree, student must earn a minimum of 42 units (Grade C or better).

1) Credit earned in NCC/NSS/PT & Games / Creative Arts will be added in the GPA of the Ist, IInd, IIIrd and IVth semester respectively and also be taken into account for the purpose of placing a student on probation vide Clause 26 and 31 of the Regulations.

2) The students who obtained D and F grades in NCC/NSS/PT & Games/ Creative Arts will have to repeat the course.

- b) The units earned by a engineering student must confirm to the minimum numbers specified by the Courses of Study in Engineering with reference to the following
- i) Theory type units
 - ii) Sessional type units
 - iii) Project sessional type of unit
 - iv) Core courses for engineering
 - v) Departmental core
 - vi) Sciences
 - vii) Language, Humanities, Social Sciences and Management

The courses of study in Pharmacy/Architecture will also specify such minima, except in the core of item (iv). The regulation regarding this is given in Appendix C.

- c) i) 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 4th semester i.e. 34 units including 2 units for NCC/ NSS/ PT & Games / Creative Arts for B.E., B. Pharm., B.Arch., and 28 units for BBA, BBM, BCA, B.Com., B.Sc. would be made by the Semester Programme Committee.
- ii) The students having a back-log of more than **8 units** including sessional type of courses at the time of registration to 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 8 units.
- (d) The student must complete all the non-credit requirement as specified by the Technical Council 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 x 10.

The class shall be awarded on the, basis of following score of CGPA:

- i) 1st Class with Distn. = CGPA of. 7.00 and above
- ii) 1st Class = CGPA of 6.00 to 6.99
- iii) IInd Class = CGPA of 5.00 to 5.99

20. ACADEMIC LOADING OF STUDENTS:

- 20.1 The academic loading of under graduate programme shall be as (a) minimum of 6 units and maximum of 9 units per semester for B.E., B.Pharm and B.Arch., (b) minimum 5 units and maximum 8 units per semester for BBA, BBM, BCA, B.Com. and B.Sc.
- 20.2 The academic loading of student on 'PROBATION' shall be governed by Clause 16 above.
- 20.3 The academic loading of a student during a summer programme shall be as in Clause 18.

20.4 a) The maximum duration for completing the programme shall be 14 semesters for B.E., B.Pharm. & B.Tech. 16 semesters for B.Arch., and 11 semesters for BBA, BBM, BCA, B.Com., B.Sc. 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.

b) A student registered in a semester may be permitted to withdraw from the academic programme for a semester for reason 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, such withdrawals will be subject to prior approval of the Vice Chancellor.

21. PROGRAMME OFFERED:

21.1 Subject to the approval of the Technical Council of the Institute, the courses of study enumerated here under shall be offered by the Institute, as per the regulations detailed above. New / specific programmes may lead to incorporation of additional requirements.

22. STUDENT DISCIPLINE:

22.1 The Institute reserves the right to suspend/ debar/ expel a student temporarily or permanently on violation of the prescribed rules.

23. LEGAL JURISDICTION:

23.1 Any dispute will be subject to the legal jurisdiction of the Courts at Ranchi.

APPENDIX -A
(*Reference clause 2.2 & 12.2*)

MODE AND METHOD OF EVALUATION.

A. REGULAR SEMESTER EXAMINATION:

Theory type of course:

Mid semester Examination-- 25% marks and 90 minutes duration examination.

End semester examination -- 60% marks and two/three hours duration examination.

The mid semester examination would be held after approximately 8- weeks from the beginning of the semester and course syllabus shall be first half of the total syllabus.

The 15% marks be allocated to assignment and Attendance with a break up of 10% and 5% respectively.

B. ATTENDANCE:

The weightage of attendance should be as follows:

| | | | |
|----|---|------|---|
| 80 | - | 84% | 1 |
| 85 | - | 89% | 2 |
| 90 | - | 94% | 3 |
| 95 | - | 99% | 4 |
| | | 100% | 5 |

Guide lines for Assignment:

See Appendix- 'D'

Sessional type course:

Progressive evaluation based on day-to-day performance – 60% marks

End semester practical examination/viva/written test – 40% marks

C. SUMMER PROGRAMME EXAMINATION:

Theory type of course:

There would be a single examination of 100 marks for one unit course and the duration of the examination should be 3/ 3.5 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/ tutorials sheet supplied to the students in the preceding regular semester. Part 'B' will be 70% marks and questions will be uniformly distributed throughout the total syllabus.

Sessional types of courses:

The sessional type of courses would be evaluated for 100% marks by the respective Departments through practical examination, viva-voce and or written test covering the total syllabus.

**There will be no concessions on any ground including medical one.
Distribution of marks for NCC/NSS/PT & Games/ Creative Art:**

N.C.C.:

| | |
|------------------------------------------------------------------------------------|-----|
| i) Discipline | 20% |
| ii) Performance in | |
| a) Military Training | 20% |
| b) Range Classification | 10% |
| c) Technical Training | 30% |
| d) Other activities such as Social Services Blood donation, Adventure trip etc. | 20% |

N.S.S.:

| | |
|----------------------------------------------------------------------------------------------------------|-----|
| i) Discipline | 20% |
| ii) Performance in | |
| a) Health & Hygiene Services | 20% |
| b) Educational Services | 20% |
| c) Shramdan | 20% |
| d) Social Integration (i.e. educating people about Social evils such as untouchability, drinking etc) | 20% |

PT & GAMES:

| | |
|---------------------------------|-----|
| i) Discipline | 20% |
| ii) Performance in | |
| a) P.T. (Callasthenics) | 20% |
| b) Gymnastics & weight training | 20% |
| c) Athletics (Track & Field) | 20% |
| d) Games | 20% |

CREATIVE ART:

| | |
|----------------------------|-----|
| i) Discipline | 20% |
| ii) Stage performance | 20% |
| iii) Continuous evaluation | 20% |
| iv) End Semester Exam. | 40% |

APPENDIX – B
(Reference Clause 14.1)

**Methods of converting percentage marks to grades
The absolute grading system will be used as under**

| % of Marks Obtained | Letter Grade |
|----------------------------|---------------------|
| 90% /above | Ex |
| 80% to 89% | A+ |
| 70% to 79% | A |
| 60% to 69% | B+ |
| 50% to 59% | B |
| 40% to 49% | C |
| 20% to 39% | D |
| 0% to 19% | F |

APPENDIX – C
(Reference Clause 19.1)

The distribution of units offered in different courses of BE/B.Pharm. shall be according to the following criteria which shall be the minimum requirement for the Degree programme.

CRITERION – I:

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

| | |
|--------------------------------------|----------|
| a) Theory subject | 44 Units |
| b) Sessional/ Practicals | 15 `` |
| c) Project | 1 `` |
| d) Free choice | 4 `` |
| e) NCC/NSS/PT & Games/ Creative Arts | 2 `` |

66 Units

CRITERION – II:

Classification according to Eng./Sciences , Core and Department subject, etc.

| | |
|---------------------------------------|----------|
| (i) For Faculty of Engineering | |
| a) Sciences | 10 Units |
| b) Languages & Social Science | 3 `` |
| c) Engineering (core subjects) | 20 `` |
| d) Departmental subjects | 27 `` |
| e) Free choice | 4 `` |
| f) NCC/NSS/PT & Games / Creative Arts | 2 `` |

66 Units

| | |
|----------------------------------------------|-----------|
| (ii) For Faculty of Pharmaceutical Sciences: | |
| a) Sciences | 4.5 Units |
| b) Language & Social Sciences | 2 `` |
| c) Engineering Subjects | 1.5 `` |
| d) Departmental Subjects | 52 `` |
| e) Free choice | 4 `` |
| f) NCC/ NSS/ PT & Games | 2 `` |

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

(iii) For Faculty of Bachelor of Architecture

CRITERIA I:

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

| | |
|---------------------------------------|----------|
| a) Theory Subjects | 40 Units |
| b) Sessional/ Practical | 24 `` |
| c) Project/ Thesis | 6 `` |
| d) Free Choice | 2 `` |
| e) Field Training | 8 `` |
| f) NCC/ NSS/ PT & Games/ Creative Art | 2 `` |

82 Units

CRITERIA II:

Classification according to Engg./Science, Core and Development Subjects

| | | |
|----------------------------------------|-------|-------|
| a) Science | 4 | Units |
| b) Languages & Social Science | 2 | `` |
| c) Engineering | 16.5 | `` |
| d) Departmental Subjects | 47.5 | `` |
| e) Free choice | 2 | `` |
| f) Field Training | 8 | `` |
| g) NCC/ NSS/ PT & Games/ Creative Arts | 2 | `` |
| | <hr/> | |
| | 82 | Units |

Appendix- D

(Reference Clouse- 13.1)

GUIDE LINES FOR ASSIGNMENT

A specific assignment shall be given to each student in every theory course immediately after registration. This may comprise new problems in emerging areas in the subjects/ design methodology/ modelling / software development / collection of new results and discussion / analysis etc. The main objective of the assignment is to improve self learning process and exposure to current literature on the subject. The assignment should be an extension of the prescribed syllabus and **in no case the repetition of the class work or problems.** The assignment should be submitted by the students in hand written form to the Coordinator of the course after the 12th week of the commencement of the semester. The date for submission will be notified in the Academic Calendar. The evaluation of the assignment will be done by a three member committee duly constituted by HOD for each course periodically. The grade/marks may be awarded as per the following norms.

| | |
|-------------|--------------------------------------------------------|
| 9 or above | - upto maximum of 20 % of the total number of students |
| 8 | - upto maximum of 30 % of the total number of students |
| 7 | - upto maximum of 40 % of the total number of students |
| 6 | - upto maximum of 30 % of the total number of students |
| 5 | - upto maximum of 20 % of the total number of students |
| less than 5 | - upto maximum of 10 % of the total number of students |