

ACADEMIC REGULATIONS & COURSE STRUCTURE

**B.TECH FOUR YEAR DEGREE COURSES
(APPLICABLE FOR THE BATCHES ADMITTED FROM 2017-18)**



**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, GUNUPUR
(Affiliated to Biju Patnaik University of Technology, Rourkela)
(Autonomous)**

Vision

To foster prosperity through technological development by means of education, innovation and collaborative research and emerge as a premier technical institution.

Mission

To provide quality education of international standards for producing technocrats and future leaders in a disciplined and conducive environment as an integral part of our social commitment to promote education globally.

REGULATIONS-2017

This Regulation may be called the GIET-Main campus (Autonomous) Regulation 2017 and is applicable for all the U.G Degree programmes offered at Gandhi Institute of Engineering and Technology(Autonomous), Gunupur from the academic year 2017-18.

1. INTRODUCTION

Academic programmes of the institute are governed by rules and regulations approved by the Academic council along with Governing Body of the Institute. These academic rules and regulations are called ordinances of GIET-Main campus (Autonomous), Gunupur an autonomous institution under BPUT. These are applicable to the faculty and students admitted during the academic year 2017-18 into first year of four year undergraduate programme offered by the institute leading to Bachelor of Technology (B.Tech) degree in the disciplines as mentioned hereafter.

- **EXTENT:**

All the rules and regulations, specified herein after will be read as a whole for the purpose of interpretation and when a doubt arises, the interpretation of the Chairman. Academic Council, Gandhi Institute of Engineering and Technology (Autonomous) is the final. As per the requirements of the Statutory Bodies, Principal, Gandhi Institute of Engineering and Technology, will be the Chairman of the Institute Academic Council. In the absence of the rules laid down by the Academic council, the rules of BPUT-Rourkela shall be applicable.

1.1: DEFINITIONS:

1. University: University means Biju Patnaik University of Technology (BPUT), Rourkela.
2. Institute: Institute means Gandhi Institute of Engineering and Technology (Autonomous), Gunupur.
3. GIET: GIET means Gandhi Institute of Engineering & Technology(Autonomous)-Gunupur
4. G.B: G.B means Governing Body of Gandhi Institute of Engineering &Technology(Autonomous), Gunupur

5. Academic Council: Academic council means Academic Council of Gandhi Institute of Engineering & Technology (Autonomous), Gunupur.
6. BoS: BoS means Board of Studies for respective department constituted as per the norms of UGC.
7. Principal: Principal means Head of the Institution of Gandhi Institute of Engineering & Technology (Autonomous), Gunupur.
8. Registrar: Registrar means Registrar of Gandhi Institute of Engineering & Technology (Autonomous), Gunupur.
9. Faculty: Faculty means teaching staff of Gandhi Institute of Engineering & Technology, (Autonomous), Gunupur.
10. Govt.: State Government of Odisha
11. R & D Council: means Research & Development Council constituted for Gandhi Institute of Engineering & Technology (Autonomous), Gunupur.
12. Ordinances & Rules: Ordinance and Rules means Ordinance and Rules of Gandhi Institute of Engineering and Technology (Autonomous), Gunupur.

2. **ADMISSIONS:**

2.1 Admission Procedure for B. Tech

Admissions to different courses of the GIET (Autonomous) shall be based on criteria decided by the Academic Council in accordance with the stipulations of AICTE / UGC and BPUT, modified as necessary. At present students who have passed +2 sciences with Mathematics & Physics as core papers are eligible to appear in JEE (MAIN)/OJEE conducted by CBSE and Govt. of Odisha. Qualified students are called to the counseling centre. As per the choice given by the students and availability of seats in the college the students are asked to admit themselves in the University by paying part of the fees.

A candidate passed or appearing 10+2 examination of CHSE, Odisha & other Board Examination or equivalent with Physics and Mathematics as compulsory subjects along with one of the subjects from Chemistry / Biotechnology / Biology/ Electronics / Computer Science / Information Technology/ Geology / Statistics. The candidate should have passed individual subject

and must have obtained at least 45% marks (40% in case of candidate belonging to SC/ST category) in the above subjects taken together.

Allocation of branch to the students is also subject to the availability of seats in a specified branch. Out of the total seats in any branch, 100% seats are filled through JEE, Odisha through Central Counsel. Remaining incase, candidates are not available under NRI quota, such lapsed/vacant seats are filled by the management quota at the institute level from the students with valid OJEE/JEE (Main) rank.

Reservation: As per the state government legislation during counseling there is a reservation of 30% for girl students, 2% for green card holders and 15% for schedule caste and schedule tribes. BPUT considers these guidelines during counseling of the students. But it is does not count for the institute seats are available for all reserved categories during the time of admission.

After final allotment the students are advised to report their concerned college within 7 days.

2.2 Change of Branch

1. Any student pursuing B. Tech programme, may be allowed a change of branch after completion of course requirements for the first (autumn) and second (spring) semesters of the first year programme, subject to availability of seats in a programme. The selection shall be on the basis of merit, assessed through the combined results of the first and second semester examinations declared in the form of Cumulative Grade Point Average (CGPA) at the end of the first year which should be 8.00 or more.
2. Only such students who have cleared all examination of both the semesters in first attempt, in examinations held during academic session of his / her first admission to the course shall be qualified to apply for a change of branch. Change of branch may be accorded subject to the condition that the consequent total student strength in the 'gainer' programme shall not exceed by 10% of the approved seats and the net student strength in the loser programme shall not deplete by more than 10% of the actual student strength existing on the rolls prior to the change during the process.

3. To award benefit of branch change, a Branch Change Committee shall be formed with the Principal as its Chairman. The committee shall invite options from the students. The committee will prepare a merit list based on CGPA and allot change of branch in order of their preferences. Institutional decision on the matter shall be final. The college shall intimate the decision on branch change within seven calendar days starting of the 3rd semester.

2.3 Admission Policy for Lateral Entry:

Passed or appearing in diploma examination in Engineering from State Council of Technical Education and Vocational Training (SCTE&VT), Odisha or equivalent with at least 45% marks (40% in case of candidates belonging to SC/ST category) in appropriate branch of Engineering / Technology only through Odisha Joint Entrance Examination (OJEE). The candidate must be a native of Odisha. Results of final diploma examination must be available on the date of document verification. Candidates, whose results are not available on the day of document verification, will not be allowed to participate in the counseling process. There is no reservation of seats in various categories in lateral entry to degree Engineering/Technology (B. Tech) courses.

The candidate must submit the Permanent Residence Certificate at the time of document verification. The candidate has to submit the Permanent Residence certificate in the prescribed format i.e., Appendix-I issued by the OJEE. Further the students having rank in lateral entry shall also be eligible for admission to the first year class subject to vacancies in the first year class in case the vacancies in lateral entry are exhausted. However the admission shall be based strictly on the basis of OJEE rank only conducted by Govt. of Odisha.

After final allotment the students are advised to report the college within 7 days.

3. PROGRAMMES OFFERED (UNDER GRADUATE)

Presently, the Institute is offering following Under Graduate (B.Tech) Program in the following disciplines:

- B.Tech. - Computer Science and Engineering (CSE)
- B.Tech. - Electronics and Communication Engineering (ECE)
- B.Tech. - Electrical and Electronics Engineering (EEE)
- B.Tech. - Information Technology (IT)

- B.Tech. - Mechanical Engineering (ME)
- B.Tech. - Civil Engineering (CE)
- B.Tech. – Applied Electronics and Instrumentation Engineering (AEIE)
- B.Tech. - Electrical Engineering (EE)
- B.Tech. - BioTechnology (BT)
- B.Tech. - Chemical Engineering (CHE)

3.1 Structure of the Programme:

The Curriculum and Syllabi under Regulations 2017 is designed keeping in mind the Outcome Based Education (OBE) and Choice Based Credit System (CBCS). The course content of each course shall be fixed in accordance with the Program Educational Objectives (PEOs), Program Outcomes (POs) and Course Outcomes (COs).

The CBCS enables the students to earn credits across programmes and provides flexibility for slow and fast learners in registering the required number of credits in a semester. The CBCS facilitates transfer of credits earned in different departments / Centers of other recognized / accredited universities or institutions of higher education in India and abroad either by studying directly or by online method. The curriculum of every programme is designed with total number of Credits ranging from 186 to 200 (135 to 166 for Lateral entry) [Refer Annexure-I]. A student will be eligible to get Under Graduate degree with Honors or additional Minor Engineering, if he/she completes an additional 20 credits. These could be acquired through MOOCs.

Each programme of study will be designed to have 40-45 theory courses and 16-18 laboratory courses and the distribution in types of courses from the above is indicated in the following Table 1.

Note: All components prescribed in the curriculum of any programme of study will be conducted and evaluated.

Contact Hours: Depending on the complexity and volume of the course the number of contact hours per week will be determined (2 to 6 hours per week per course)

Credits: Credits are assigned to each course as per norms mentioned in the following Table 2.

Table 1

S.NO.	Broad Course Classification	Course Group/ category	Course Type	No. of Credits
1	Foundation Courses	HS – Humanities and Social Sciences	Humanities, Social Sciences and Management	23
2		BS – Basic Sciences	Mathematics, Physics and Chemistry Courses etc.	28
3		ES – Engineering Sciences	Fundamental engineering courses	36
4	Core Courses	PC- Professional Core	Core courses related to the parent discipline / Branch of Engg.	42
5	Elective Courses	PE – Professional Electives	Elective courses related to the Parent Discipline/ Branch of Engg.	23
6		OE – Open Electives	Common Elective courses offered for all programs / Branches of Engg.	18
7	Employability enabling Courses	Project Work, Seminar, and Internship in industry	A course of study with discussion and report	16
8	No CGPA Credit course	Mandatory Courses	Induction training , Environmental Sciences, , Indian Constitution, Essence of Indian Traditional Knowledge	
		Personality and Character Development	Sports Yoga for youth empowerment National Service Scheme YRC CO/Extra Curricular Activities	
Total				186

Table 2

Types of Course	Lectures (Periods/week) L	Tutorials (Periods/week) T	Practical Work (Periods/week) P	Credits	Total Credits C	Total Periods/ week
1 Credit	2	0	0	1:0:0	1	2
	0	0	2	0:0:1	1	2
2 Credit	2	0	0	2:0:0	2	2
	1	0	2	1:0:1	2	3
	0	0	4	0:0:2	2	4
3 Credit	3	0	0	3:0:0	3	3
	2	2	0	2:1:0	3	4
	2	0	2	2:0:1	3	4
	0	0	6	0:0:3	3	6
4 Credit	2	2	2	2:1:1	4	6
	3	2	0	3:1:0	4	5
	3	0	2	3:0:1	4	5

The total number of credits a student earns during the course of study period is called the total credits. A Student must earn **186 – 200** credits (varies with the branch) for successful completion of the B. Tech regular programme (**Eight** semesters) and **135-166** credits for lateral entry (**Six** semesters).

3.2 Transitory Regulations

Discontinued, detained or failed candidates are eligible for readmission as and when the semester is offered after fulfillment of academic regulations. Candidates who are detained due to shortage of attendance or for not fulfilling academic requirements or failed after having undergone the programme in earlier regulations or have discontinued and wish to continue the programme are eligible for admission into unfinished Semester from the date of commencement of class work with the same or equivalent courses as and when such courses are offered, they will be in the academic regulations into which they get readmitted.

3.3 Curriculum for each Programme of Study:

- i. The duration of the programme shall be governed by the regulations of AICTE that may change from time to time. As per the prevailing regulations, B.Tech programme is Four years (Eight Semesters). A weaker student can complete a four year programme in not more than seven years.
- ii. Details of curricula and syllabi shall be as decided by the Academic Council with provision for modification from time to time as per the needs of the specializations concerned.

- iii. The Four year curriculum of any B.Tech Programme of study in any branch of Engineering is formulated based and on the guidelines mentioned in 3.1 and will be recommended and approved by the Academic council of the institute.
- iv. In case of students admitted under lateral entry, the respective regular curriculum contents from second year onwards are to be pursued by them.
- v. After approval from the Academic Council, programme curriculum will be prepared and made available to all the students along with the Academic regulations.
- vi. Each year shall be divided into two Semesters - Autumn Semester (July to December) and Spring Semester (January to June). The Autumn semester shall ordinarily begin in July for students already on rolls and the Spring semester shall ordinarily begin in January. However, the first semester (Autumn, for newly admitted students) may begin a little later depending on completion of admission process and formalities. The number of teaching weeks in each semester shall be fifteen to eighteen with a minimum of 90 teaching days excluding the period of examination.
- vii. Students, who fail to fulfill the requirement for the award of the degree in 7 consecutive academic years (6 Years for lateral entry) from the year of admission, shall forfeit their seat.

3.4 Academic Regulations for B.Tech (Lateral Entry Scheme)

- i. The students have to acquire **135-166** credits from III semester of B.Tech Programme (regular) for the award of the degree.
- ii. Students, who fail to fulfill the requirement for the award of the degree in 6 consecutive academic years from the year of admission, shall forfeit their seat.
- iii. The same attendance regulations are to be adopted as part of B.Tech (Regular)

4 Maximum duration of study and cancellation of admission:

Maximum duration permitted for any student to successfully complete the four year B.Tech programme of study will be.

- Seven academic years in sequence from the year of admission for a normal student admitted into first year of any programme.
- Six academic years in sequence from the year of admission for a lateral entry student admitted into second year of any programme.
- For students admitted with advanced standing, the maximum time for completion of programme of study, will be extended with approval of Academic Council based on the request of the student.
- In case, any student fails to meet the above applicable / eligible conditions for the award of degree, his /her admission stands cancelled.

5. Subject-wise Registration and Eligibility to Appear at Examinations.

- i. Each student, on admission shall be assigned to a Faculty Advisor/Proctor who shall advise her/him about the academic programs and counsel on the choice of courses considering the academic background and student's career objectives. With the advice and consent of the Faculty Advisor the student shall register for a set of courses he/she plans to take up for the Semester.
- ii. Every student shall enroll for the courses of the succeeding semester during the last week of the current semester. However, the student shall confirm the enrollment by registering for the courses within first five working days after the commencement of the concerned semester. All Registered Students of GIET (Autonomous) have to register for each of the subjects they are required to study. A student has to apply in a specified format for subject-wise registration for the term with prescribed fees. The same will be scrutinized and registration confirmation will be given to the Head of the Department.
- iii. A student who has been promoted with backlog (XP) has to register first for the backlog subjects being offered in the semester. During the course of study the students may register in any number of (2nd semester onwards) backlog (failed) subjects of their lower semesters; preference being given to lowest possible semester in addition to the prescribed subjects of that semester. During normal course of study a student may register the backlog (failed) subjects of his / her branch of study of lower semester. After completing the final semester, a student may register in any number of backlog (failed) subjects or subjects (having requisite attendance) and

attempt to clear them during appropriate semester examinations. The student once registered for a set of backlog subjects cannot change them during the semester.

- iv. If a student does not secure a pass grade in Laboratory./Sessional subject, he/she has to clear the same as prescribed above.
- v. shortage of Attendance eligibility: A student shall not be allowed to appear in the Semester examination (including Special Examination of that year) in those particular theory/ Laboratory subjects where he / she has shortage in attendance that is less than 80%. He / She will be allowed to appear at the theory examinations in other subjects where he / she has no shortage in attendance. The attendance shall be considered from the date of commencement of classes as per academic calendar of the GIET (Autonomous). The schedule of classes shall be notified through a Time Table before the beginning of the classes in the Semester.
- vi. Attendance record must be compiled at the time of each class test and the students with poor attendance must be informed through notification. The guardian must also be informed through a letter. Letters must be issued to the student and the guardian before he/ she is debarred for appearing end semester examination due to shortage of attendance. Principal has to be informed about the percentage of attendance before starting of examination.
- vii. Concessions: A student who has been absent for short periods on health ground or due to participation in cultural, sports, other academic / official assignments in the interest of the institution / college / University / government with prior written permission of the head of the institution / college shall be permitted a maximum of additional concession of 15% in attendance and would be eligible for appearing in examination with a minimum of 65% of attendance in a semester. No student shall be allowed to appear at End semester examination/ Special Examination with shortage of attendance below 65% in any of the registered subjects.
- viii. A student shall be admitted to any examination in a subject only if he / she has registered for that subject and paid necessary registration and examination fees in the beginning of the semester.
- ix. A candidate shall be allowed in an End - Semester examination only after he / she is issued an Admit Card for the relevant examination by GIET(Autonomous).

- x. A student who is promoted to the next higher year with backlogs in the previous year shall be permitted to appear at an examination for the backlog subjects, provided he/she fulfills the conditions above.
- xi. A student who has been absent on medical ground may be allowed to appear at an examination provided he/she has attended at least 65% of classes and (i) a medical board and (ii) the Principal, GIET(Autonomous) recommended for such relaxation.

6.0 Rules for examinations

6.1. Each discipline consists of the following four types of items:

- Theory Items
- Practical Items
- Project Items

The schedule of these items along with their credit points for each semester shall be as per rules formulated by the Academic Council from time to time.

6.2. At the end of each semester, there shall be an examination (hereinafter called end-semester examination) conducted by the GIET(Autonomous) as per programme announced at the beginning of each academic year.

6.3. Back paper examinations, if any, shall be held with the normal end semester examination.

6.4. Students with backlogs shall clear their backlog subjects along with regular students of lower semester(s) in subsequent year or in the same year if a subject is offered in both semesters.

6.5. There shall be Special examinations after the final semester examination for 3rd to final semester subjects. Students who have gone through the final semester examinations are eligible to appear at the Special examinations. Students who have appeared at the semester examinations (3rd to final semester) and secured 'F' grade in the subjects, are eligible to avail this opportunity to clear these subjects. Students, after completing of final semester examination, can register in any number of subjects (failed) for the Special Examinations. The Special Examination will be after the regular examinations as announced by Controller of Examinations.

6.6. Students who have secured 'M' or 'S' Grade in any subject(s) are not eligible to appear Special Examinations. However, such students can appear at the Regular Semester Examinations to clear such subjects and if they fail they can appear at the next Special Examinations.

6.7 Performance in each course of study shall be evaluated based on (i) continuous internal assessment throughout the semester and (ii) End Semester Examinations (ESE) at the end of the semester.

6.8 Each course, both theory / integrated, practical and project work shall be evaluated for a maximum of 100 marks. For all theory / integrated and practical courses including the project work, the continuous internal assessment shall carry 50% marks while the End Semester Examinations shall carry 50% marks respectively. **i.e.** Each course shall be evaluated for a maximum of 100 marks as detailed in Table 3

Table-3.

SNO	TYPE OF EXAM	UG (B.TECH)	PASSING MARKS
1	INTERNAL EXAM (Theory)	100	40
2	END-SEM EXAM (Theory)	100	35
3	END LAB EXAM	100	50

6.9 The End Semester Examination (Theory / Integrated & Practical) of 3 hours duration shall ordinarily be conducted between November and January during the odd semesters and between April and June during the even semesters. Further, in line with Course outcomes (COs), the end semester question pattern can be of different types as detailed in **Table-4** and it shall be mentioned in the curriculum itself.

6.10 PRE-EXAMINATION PROCESSES:

6.10.1. Registration

Every student has to register themselves at the beginning of each semester by paying prescribed registration fee as per the academic calendar.

Table-4.

Question Pattern	1 Mark	2 Marks	5 Marks	10 Marks	15 Marks	16 Marks	20 Marks	Total
A	10	15(Out of 20)	6(Out of 8)		2(Out of 4)			100
B		10	6(Out of 8)		4(Either or Type)			100
C							1 Qn Compulsory & 4 Either or type	100
D	10	15			4(Either or Type)			100
E	10	10	6(Out of 8)	4(Either or Type)				100
F		10					4(Either or Type)	100
G		10				1 Qn Compulsory & 4 Either or type		100

Student need to score a minimum of 35 marks in end semester examination out of 100 marks and 40 Marks internal out of 100 to declare pass in any particular theory subject.

6.10.2. Mid- Semester Examinations

- a. Attendance in Mid-Semester Examinations is compulsory.
- b. As per the academic schedule, the Very surprise test (VST), Mid- Semester Examinations , Lab- examinations will be conducted by the Department examination coordinators and the same will be read out in the class rooms and display in the departmental notice boards. Two mid- Semester examinations for each theory subject will be conducted as per academic regulations.
- c. Re Mid-Examination will be conducted (in case student is absent due to genuine reasons or failed in the concerned subject) with a payment of Rs. 100/- per each subject.

6.10.3. Very Surprise Test (VST)

- a) VST is a part of continuous evaluation method, which will start 15 days after commencement of class work.
- b) VST will be conducted on every Wednesday/ Thursday afternoon, for two subjects, 20 marks each for 1 hour.

6.10.4. Conduct of end semester lab examinations:

- a. Apart from continuous evaluation, end semester lab viva will be conducted at the end of semester by inviting external examiners.
- b. The responsibility of the Semester end lab examination conduct lies with the respective HOD and the supervision of Chief Superintendent of the examination.
- c. Semester end lab examinations will be conducted by the teacher concerned and external examiner.

6.10.5. Eligibility for appearing end semester examination:

The semester attendance has to be finalized by the Coordinator and HOD concerned before one week of the last working day of the semester.

- a. The student, who falls short of prescribed percentage of attendance (65% and above below 80%) on medical grounds, has to apply to the Coordinator of the department concerned for condonation along with medical certificate. On the recommendation of the department Coordinator & Head of the department, the Principal will forward the condonation of the attendance and such list to be sent two weeks in advance before the issue of Hall Tickets. Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examination.
- b. Genuine medical certificates shall be submitted by the students soon after they reach headquarters.
- c. Shortage of attendance below 65% in aggregate shall in no case be condoned. The list of the Detained candidates duly signed by the Principal shall be displayed on the notice board by the departments and a copy of the same to be sent to the examination cell before two weeks of the course completion of the semester.
- d. The notification, calling for applications for form- fill-up of the ensuing end semester examination is issued at least two weeks before the commencement of examinations. Students are advised to clear their dues before form fill-up.
- e. Students must bring Identity card, Registration Card and Admit Card.
- f. In case any student loses his/her original admit card, a copy of admit card will be issued on payment prescribed fee of Rs. 100.

6.11 . POST EXAMINATION PROCESS:

6.11.1. PROCEDURE PERTAINING TO RECOUNTING/RECHECKING OF UG/PG EXAMINATION

- a. Recounting/Rechecking of answer script is applicable for end semester theory examination only.
- b. Notification for Recounting / Rechecking will be notified by Examination Cell on the day of results declaration.

- c. For Recounting/ Rechecking, prescribed application given in the notification is mandatory. The Candidate has to apply for recounting or revaluation in prescribed application format as specified/notified.
- d. The application for Recounting/ Rechecking after the last date will not be entertained.

Category	Prescribed Fees
Recounting Only	Rs. 200.00
Rechecking Only	Rs. 300.00
Rechecking with Photocopy of Answer Script	Rs. 1000.00
Challenge Evaluation	Rs. 5000.00

6.11.2. RECOUNTING

- a. Senior faculty other than subject expert may be nominated.
- b. The script will be verified to ascertain whether all questions are valued or not.
- c. If there is any change in recounting and that is more than the previous marks, the recounting marks will be considered for award/grade in that subject.
- d. In Recounting, if the marks secured are less than the previous marks awarded then the previous marks awarded holds good and there is no change in the status.

6.11.3. RECHECKING

- a. Rechecking will be carried out by other than the first examiner.
- b. In the rechecking, if the variation in the marks is less than or equal to 15% of marks secured, then previous marks secured by the candidate holds good.
- c. If the variation is more than 15% of the external marks, then it will be sent to the third valuation. The marks obtained in the third valuation will be compared with the first and the second valuation. The marks among these two which are closer to the third valuation are considered. If the marks obtained in third valuation in mid way of valuation one and valuation two, then the case to be considered on lower Side.
- d. In Rechecking, if the marks Secured are less than the previous marks awarded then the previous marks awarded holds good and there is no change in the status.

6.11.4. RECHECKING WITH PHOTOCOPY OF ANSWER SCRIPT

Photocopy of answer script which was reevaluated can be made available to the students on submission of prescribed application along-with prescribed fees.

6.11.5. CHALLENGE EVALUATION

In case a script has not been evaluated in a proper manner as per regulations, then the prescribed fees paid by the student will be refunded. The concerned evaluator will be taken action against him/her as deemed fit.

6.12. Backlog Examinations

- a. Detained/ Failed / absent students will be allowed to appear backlog examination as per eligibility.
- b. Candidates, who have failed in Mid-semester examination, can appear Re-Mid-Semester examination by paying a fee of Rs. 200.00 per subject.
- c. Candidates who have failed in the Lab can reappear the same by paying a fees of Rs. 1000.00 per lab.
- d. In case a student fails in Re-Mid-Semester / Lab examination, he/she will appear the next Mid-Semester/ Lab examination along-with the subsequent batch of students.

6.13. Special Examinations

Candidate(s), who failed in theory / seminar / project work etc. in 8th Semester (end semester in the programme) can appear for Special supplementary examination which will be conducted within one month after declaration of the revaluation results.

However, those candidates who failed in these special supplementary examinations shall appear for subsequent examination along with regular candidates in the examinations which will be conducted at the end of the respective semester.

7.0 Declaration of Result and Promotions

7.1 In order to pass a programme / course a candidate must secure at least Pass Grade in each of the Theory, Practical, Project, Seminar, Sessional and Viva Voce items and maintain a minimum level of overall performance.

7.2 The promotional status between two consecutive semesters and / or two consecutive levels / years shall be indicated on the Semester Results as detail below:

A. Passed and Promoted (denoted by P) indicating that

- The candidate has cleared every registered course item of both odd and even semester of the academic year.
- He / She has no backlog from lower levels.
- He / She has secured CGPA of 6.0 or more.

B. Eligible for Promotion with backlogs (denoted by XP) indicating that

The candidate is eligible for promotion with backlog (XP) in the following situation:

For promotion from 1st year to 2nd year :

A student at the end of the first year (inclusive of first and second semesters) having a minimum of CGPA of 4.50 is eligible for promotion to the Second year, regardless of the number of failed subjects except candidates under Clause - D.

A student (at the end of first year) with a CGPA of less than 4.50 may choose to quit; or pursue studies after registering as a fresh student in the First year. If such a student in the new 1st year once again fails to secure a CGPA of at least 4.50 at the end of the new First Year, he/she has to quit the BPUT system.

For promotion from 2nd year to 3rd year :

All students of second year (after 4th semester) are eligible for promotion to 3rd year except candidates under Clause - D.

For promotion from 3rd year to 4th year :

All students of third year (after 6th semester) are eligible for promotion to 4th year except candidates under Clause - D.

Important Note:

The SGPA of the lower semester(s) of XP category students after clearing their backlog subjects would be updated. This updated SGPA would be considered for their promotion in the 1st year.

C. The candidate is eligible for promotion to next higher level (year / semester) if (i) he / she has registered for all the subjects for any semester AND (ii) he /she has appeared in the semester examination in at least 3 (three) theory subjects of the regular semester AND (iii) he/she has attended at least 2 (two) lab / practical / sessional classes.

N.B.: All the above three conditions have to be satisfied for promotion to the next higher semester / year.

D. Not Eligible for Promotion (denoted by X) indicating that The student is NOT eligible for promotion to the next higher level as he / she has not fulfilled the stipulated requirements defined under the provisions, stated above under Clause 'A', 'B' and 'C' for promotion.

Important Note:

The 'X' category students as well as those who do not want to be promoted and who are otherwise eligible to continue in the BPUT system, are required to re-register for that year. They are required to register in all the backlogs (failed / not appeared) subjects of both the semesters of that year except 1st year.

E. Registration for students under Clause – C

The students, who are NOT eligible for promotion are to register and appear at the back paper subjects except 1st year. If he/she does not have 75% attendance in a subject, he/ she has to attend the classes in those subjects and to fulfill Clause - 3.3 to become eligible for appearing the examination.

This regulation is applicable to all programmes of duration three years and more.

7.3 A candidate shall be eligible for promotion to the next higher level / year if he / she satisfies the conditions laid down under the rules formulated by the Academic Council.

7.4 Candidates declared eligible for promotion to the next level without clearing all course items of earlier semesters individually shall have to apply for permission for admission to the higher level and obtain the same from the director / principal of concerned institution before registration.

7.5 The University shall publish a list of all successful candidates of each of the semester examinations within the date prescribed in academic calendar.

7.6 The overall performance of a successful candidate for the award of a degree shall be based on the combined results of all the examinations of the concerned programme.

7.7 A student's level of competence shall be categorized in accordance with the Cumulative Grade Point Average.

8.0. ATTENDANCE REGULATIONS AND CONDONATION:

- i. A student will be eligible to appear for end semester examinations, if he / she acquired a minimum of 80% of attendance in aggregate of all the subjects.
- ii. Condonation of shortage of attendance in aggregate up to 15% on medical grounds (65% and above, below 80%) in any semester may be granted by the institute Academic committee. However, the subject of granting is purely at the discretion of the Institute Academic Committee or competent authority.
- iii. A student will not be promoted to the next semester unless he / she satisfies the attendance requirement of the present semester as applicable. They may seek readmission for that semester as and when offered next.
- iv. Shortage of attendance below 65% in aggregate will no case be condoned.
- v. Students whose shortage of attendance is not condoned in any semester are not eligible to take up their end examination of that particular semester and their registration for examination will stands cancelled.
- vi. A stipulated fee will be payable towards condonation of shortage of attendance.
- vii. Attendance may also be condoned for those who participate in intercollegiate / university sports, co- and extracurricular activities provided their attendance is in the minimum prescribed range for the purpose and recommended by the concerned authority.

9.0. MINIMUM ACADEMIC REQUIREMENTS:

The following academic requirements have to be satisfied in addition to be attendance requirements mentioned in **S.No.7.**

- i. A student will be deemed to have satisfied the minimum academic requirements and earned the credits allotted to each theory or practical design or drawing subject or project if he / she secures not less than a minimum of 35% of marks exclusively at the end semester examinations in each of the subjects. In which candidate had appeared. However, the candidate should have secured minimum of 4.75 CGPA in both external and internal components put together to declare eligible for pass in the subject.
- ii. A student will be promoted from first year to second year. If he / she satisfies the minimum attendance requirement.
- iii. A student will be promoted 4th Semester to 5th Semester if he / she secures prescribed minimum attendance in 4th Semester.
- iv. A student will be promoted from 6th to 7th Semester if he/she secures prescribed minimum attendance in 6th Semester.
- v. Candidate who fails in 7th & 8th Semester can appear for Special Examinations.

10.0. ELIGIBILITY FOR AWARD OF DEGREE:

A student shall be eligible for award of the B.Tech. Degree if he/she fulfils all the following conditions:

- (i) Pursued a course of study for a stipulated period of four years and not more than seven years.
- (ii) Registered and successfully completed all the components prescribed in the programme of study to which he/she is admitted.
- (iii) Obtained CGPA greater than or equal to 4.75 (minimum requirements for pass).
- (iv) Has no dues to the institute, hostels, libraries, NCC/NSS etc., and No disciplinary action is pending against him/her.

11.0 COURSE CODE & COURSE NUMBERING SCHEME:

The subject codes will be given by the department teaching the subject. Each subject code contains 8 characters. The 8 characters for each subject will be filled as per the following guidelines.

1	2	3	4	5	6	7	8	9
COURSE	BRANCH NAME		SUBJECT CATEGORY		SEMESTER	T/L	SERIAL NUMBER	

1. COURSE:

B : B.TECH

M : M.TECH

2 & 3: BRANCH NAME:

B.TECH	M.TECH
CS – Computer Science & Engineering EL – Electrical Engineering EE – Electrical & Electronics Engineering ME – Mechanical Engineering BT – Biotechnology CV – Civil Engineering IT – Information Technology CH – Chemical Engineering AE – Applied Electronics & Instrumentation Engineering EC – Electronics & Communication Engineering MG – Master of Business Administration TP – Training and Placement	TE : Thermal Engineering MD : Machine Design PE : Power Electronics EC : Electronics & Communication Engineering CS : Computer Science & Engineering SE : Structural Engineering

4 & 5: SUBJECT CATEGORY:

BS – Basic Science Subjects

HS – Humanities Science Subjects

ES – Engineering Science

PC– Professional Core

PE – Professional Elective

OE – Optional Elective

IE – Interdisciplinary Elective

6: SEMESTER:

1 – 8 represent 1ST SEMESTER to 8TH SEMESTER

7: Theory / Lab:

0 : Theory 1: Lab

8 & 9: SERIAL NUMBER OF SUBJECT:**11. GRADING SYSTEM:**

11.1 Award of Grade:

11.1.1. B.Tech/ M.Tech

QUALIFICATION	GRADE	SCORE ON 100% POINTS	POINT
OUTSTANDING	O	90 to 100	10
EXCELLENT	E	80 to 90	9
VERY GOOD	A	70 to 80	8
GOOD	B	60 to 70	7
FAIR	C	50 to 60	6
AVERAGE	D	37 to 50	5
FAIL / ABSENT	F	< 37	2
MALPRACTICE	M	-	0

11.1.2: A student's level of competence shall be categorized by a GRADE POINT AVERAGE to be specified as:

SGPA – Semester Grade Point Average

CGPA– Cumulative Grade Point Average

It shall be the basis of judging his/her overall competence in the course.

11.1.3: Definition of Terms:

- a) **POINT** - Integer equivalent each letter grade
- b) **CREDIT** - Integer specifying the relative emphasis of individual course item(s) in a semester as indicated by the course structure and syllabus.
- c) **CREDIT POINT** - (b) x (a) for each course item
- d) **CREDIT INDEX** - Σ CREDIT POINT of course items in a Semester
- e) **GRADE POINT** - $\text{CREDIT INDEX} / \Sigma \text{CREDIT}$

11.1.4 .Calculation of Semester Grade Point Average (SGPA):

The performance of each student at the end of the each semester is indicated in terms of SGPA. The SGPA is calculated as given below

$\text{SGPA} = \text{CREDIT INDEX} / \Sigma \text{CREDITS}$ for each semester

Calculation of Cumulative Grade Point Average (CGPA) for Entire Program:

The CGPA is calculated as given below:

$\text{CGPA} = (\Sigma \text{CREDIT INDEX all previous semester}) / (\Sigma \text{CREDITS of all previous semester})$

11.1.5 . Conversion of CGPA to PERCENTAGE:

$$\text{Equivalent Percentage of Marks} = (\text{CGPA} - 0.50) * 10$$

11.2 Issue of Grade Sheets:

- a. After the announcement of revaluation results, grade sheets will be printed year-wise.
- b. Grade sheets will be issued to students after 15 days from announcement of revaluation results.
- c. If any student loses the grade sheet issued to him/her, a duplicate grade sheet may be issued on application and payment of prescribed fee of Rs. 200/- (per grade sheet) with submission of FIR Copy from nearest police station. Such grade sheet may be oriented prominently as “DUPLICATE”.

11. 3. Issue of Transcripts / Original Degree / Migration Certificate

- a. A transcript is an official document containing the performance of a student, course taken by the student, the credits earned and the grades awarded.
- b. A student can obtain transcripts by submitting the application with prescribed fee.
- c. The application should be accompanied by photo copies of all the grade sheets issued to the student by the examination section.
- d. The staff concerned after checking the entries made in the application with the photo copies of the grade cards, will forward the application to the Assistant controller of examination concerned for further checking.
- e. The Assistant controller of examinations concerned should check the entries made by in the application with entries in the tabulation register.
- f. If the entries are found to be correct, the Assistant controller concerned forwards the application to the Controller of Examinations.
- g. Assistant controller of examinations will forward the application along with copy of grade sheets to the parent University for issuing of transcript.
- h. The above procedure shall also be followed for obtaining “**Original Degree Certificate**” and “**Migration Certificate**”.

12. PERMISSION FOR SCRIBE TO APPEAR FOR EXAMINATIONS

1. Candidates in need of Scribe should apply with the reason and following evidences.
 - (a) Medical Certificate issued by a Civil Surgeon working in a Government Hospital.
 - (b) Photo of the student / candidate highlighting the inability to appear for the examination.
 - (c) The Particulars of proposed scribe i.e., name, address, qualifications, photo and present occupation. [The scribe should not exceed intermediate qualification].
 - (d) A letter from the scribe stating that he / she is willing to act as scribe.
 - (e) A copy of the certificate of scribe's qualification along with recent photograph duly attested by the head of the institution.
2. Controller of Examinations in consultation with Principal approves that he /she personally verify regarding qualification of the scribe as per norms and provide a separate room and invigilator for all examinations of the candidate.

13. CONDUCT & DISCIPLINE:

- (a) Students shall conduct themselves within and outside the premises of the institute in a manner befitting the students of our institution.
- (b) As per the order of Honorable Supreme Court of India, ragging in any form is considered as a criminal offence and is banned. Any form of ragging will be severely dealt with.
- (c) The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures with regard to ragging.
 - (i) Lack of courtesy and decorum inducement behavior anywhere within or outside the campus.
 - (ii) Willful damage or distribution of alcoholic drinks or any kind of narcotics or of fellow students/citizens.
- (d) Possession, consumption or distribution of alcoholic drinks or any kind of narcotics or hallucinogenic drugs.
- (e) Mutilation or unauthorized possession of library books.
- (f) Noisy and unseemly behavior, disturbing studies of fellow students.
- (g) Hacking in computer systems (such as entering into other person's areas without prior permission, manipulation and/or damage of computer hardware and software or any other cyber crime etc.

- (h) Usage of camera cells phones in the campus.
- (i) Plagiarism of any nature.
- (j) Any other act of gross indiscipline as decided by the academic council from time to me.
- (k) Commensurate with the gravity of offense, the punishment may be reprimand, find, expulsion from the institute/hostel, debarment from a examination, disallowing the use of certain facilities of the institute, rustication for a specified period or even outright expulsion from the institute, or even handing over the case to appropriate law enforcement authorizes or the judiciary, as required by the circumstances.
- (l) For an offence committed in (i) a hostel (ii) a department or in a class room and (iii) elsewhere, the chief Warden, the Head of the Department and the principal respectively, shall have the authority to reprimand or impose fine.
- (m) Cases of adoption of unfair means and/or any malpractice in an examination shall be reported to the principal for taking appropriate action.
- (n) All cases of serious offence, possible requiring punishment other than reprimand, shall be reported to the Academic Council.
- (o) The Institute Level Standing Disciplinary Action Committee constituted by the academic council shall be the authority to investigate the details of the offence, and recommend disciplinary action based on the nature and extent of the offence committed.
- (p) The Principal shall deal with any academic problem which is not covered under these rules and regulations, in consultation with the Programmes Committee in an appropriate manner, and subsequently such action shall be placed before the academic council for ratification. Any emergency modification of regulation, approved by the academic council earlier, shall be reported to the academic council for ratification.
- (q) **“Grievance and Redressal Committee” (General)** constituted by the principal shall deal with all grievances pertaining to the academic/administrative/disciplinary matters. Grievances may be submitted online.
- (r) The Women anti- harassment Cell is to maintain a congenial working environment for Women Employees and students of GIET(Autonomous) in accordance with the guidelines provided by the Supreme Court of India
- (s) All the students must abide by the code and conduct rules of the institute.

14 **MALPRACTICES:**

	Nature of Malpractices/ Improper conduct	Punishment
	<i>If the candidate:</i>	
1 a.	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, palm computers, blue tooth or any other form of material concerned with or related to the course of the examination (theory or practical) in which he/she is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the course of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
1. b.	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the examination hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he/she will be handed over to the police and a case is registered against him.
1 c.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the course of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject.
2.	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred for four consecutive semesters from class work and all end examinations. If he/she is not a student of the college he/she shall be handed over to police.
3.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the	Expulsion from the examination hall and cancellation of performance in that

	question paper during the examination or answer book or additional sheet, during or after the examination.	subject and all the other subjects. The candidate is also debarred for two consecutive Semesters from class work and all Semester end examinations.
4.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject and handover him/her to Disciplinary committee for appropriate action.
5.	Leaves the examination hall taking away answer script or intentionally tears of the script or any part thereof.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects. The candidate is also debarred for two consecutive Semesters from class work and all Semester end examinations.
6.	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that Semester/year.
7.	Comes in a drunken condition to the examination hall.	Rustication from all examinations as well as from the college for one semester.
8.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject depending on the recommendation of the committee.
9.	If any malpractice is detected which is not covered in the above clauses 1 to 8 shall be reported to the Principal for further action to award suitable punishment.	

15. **AMENDMENTS TO REGULATIONS:**

The Academic Council of Gandhi Institute of Engineering and Technology(Autonomous), Gunupur reserves the right to revise, amend or change the Regulations, Schemes of Examinations, and/or Syllabi or any other matter pertained suitable to the needs of the students, society, industry without any notice.

B.TECH

Department of _____

Model Curriculum and Syllabus

Regulations 2017

Programme Educational Objectives

Programme educational objectives are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve. Programme educational objectives are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.

1

2

3

4

5

Program Outcomes (POs)

Engineering Graduates will be able to:

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

I Semester

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
Total								

II Semester

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
Total								
PRACTICAL								
Total								

III SEMESTER

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
PRACTICAL								
Total								

IV SEMESTER

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
PRACTICAL								
Total								

V SEMESTER

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
Total								

VI SEMESTER

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
Total								
PRACTICAL								
Total								

VII SEMESTER

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
Total								

VIII SEMESTER

S.No	Course Category	Course Code	Course Title	L	T	P	C	QP
THEORY								
Total								
PRACTICAL								
Total								

Title of the subject						
Subject Code		L	T	P	C	QP
Pre -Request:						
Course Educational Objective						
CEO1:						
CEO2:						
Course Outcome						
CO1						
CO2						
CO3						
CO4						
CO5						
UNIT:1						(No of Hours)
UNIT:2						(No of Hours)
UNIT:3						(No of Hours)
UNIT:4						(No of Hours)
Teaching Methods: Chalk& Board/ PPT/Video Lectures/Lecture by Industry Expert/MOOCs						
Text Books 1						
2						
Ref. Books 1						
2						