ACADEMIC REGULATIONS-2020
(R20)

For

B.TECH FOUR YEAR DEGREE COURSE
(Applicable for the batches admitted from 2020-21)

LENDI INSTITUTE OF ENGINEERING & TECHNOLOGY
An Autonomous Institution
Approved by AICTE & Permanently Affiliated to JNTUK, Kakinada
Accridated by NAAC with 'A Grade'
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LENDI INSTITUTE OF ENGINEERING & TECHNOLOGY:VIZIANAGRAM

(Autonomous)

Academic Regulations (R20) for Four years B.Tech(U.G) Program

The following academic regulations will be applicable to the students admitted into First Year of B. Tech. (Regular, with Honors/Minors) from the Academic Year 2020-21 under Autonomous system.

1. **Eligibility for Admission**:
   a. **I Year B.Tech(U.G):** The total seats available as per the AICTE approved intake are grouped into two categories (i.e)Category A and Category B in the ratio of 70:30 as per Andhra Pradesh State Council for Higher Education (APSCHE) in consonance with government reservation policy.
      - Under Category A: 70% of the seats are filled through EAMCET counseling.
      - Under Category B: 30% seats are filled based on 10+2 merits in compliance with guidelines of APSCHE.
   b. **II Year B.Tech (U.G):** Under Lateral Entry Scheme students with Diploma/B.Sc qualification have an option of direct admission into 2nd year B.Tech. (Lateral Entry Scheme). Under this scheme 10% seats of sanctioned intake will be available in each course as supernumerary seats as per Andhra Pradesh State Council for Higher Education (APSCHE). Admissions to this three year B.Tech Lateral Entry Programme take place through ECET as per government policy.

2. **Duration of the Programme:**
   a. **B.Tech(U.G):** The course duration for the award of the Degree in Bachelor of Technology will be 4 academic years, with two semesters in each year. However, if a student is unable to complete the course within 4 years, he/she can do so by giving more attempts but within 8 consecutive academic years from the date of admission.
   b. **B.Tech (U.G) Under Lateral Entry:** The course duration for the award of the Degree in Bachelor of Technology will be 3 academic years, with two semesters in each year. However, if a student is unable to complete the course within 3 years, he/she can do so by giving more attempts but within 6 consecutive academic years from the date of admission.

3. **Medium of Instruction:** The medium of instruction of the entire B. Tech undergraduate programme in Engineering & Technology (including examinations and project reports) will be in English only.

4. **Programme Pattern:**
   a. Total duration of the of B. Tech (Regular) Programme is four academic years
   b. Each Academic year of study is divided in to **two semesters**.
   c. Minimum number of instruction days in each semester is 90.
   d. Grade points, based on percentage of marks awarded for each course will form the basis for

calculation of SGPA (Semester Grade Point Average) and CGPA (Cumulative Grade Point Average).

   e. The total credits for the Programme is 160.

   f. Induction program is mandatory for all first year UG students and shall be conducted as per AICTE/UGC guidelines.

   g. Student is introduced to "Choice Based Credit System (CBCS)".

   h. A student has to register for all courses in a semester.

   i. All the registered credits will be considered for the calculation of final CGPA.

   j. Each semester has – "Continuous Internal Evaluation (CIE)" and "Semester End Examination (SEE)". Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and course structure as suggested by AICTE are followed.

5. Definition of Credit:

1 Hr. Lecture (L) per week	1 credit
1 Hr. Tutorial (T) per week	1 credit
1 Hr. Practical (P) per week	0.5credits

6. Award of B. Tech. Degree:

A student will be declared eligible for the award of B. Tech. Degree if he/she fulfills the following academic regulations:

   a. Student pursues a course of study in not less than four and not more than eight academic years.

   b. After eight academic years from the year of their admission, he/she shall forfeit their seat in B. Tech course and their admission stands cancelled.

   c. The Student shall register for160 credits and secures all the 160 credits.

   d. A student shall be eligible for the award of **B.Tech degree with Honors or Minor** if he/she earns 20 credits in addition to the 160 credits. A student shall be permitted to register either for Honors or for Minor and not for both simultaneously.

7. Courses of Study:

The following courses of study are offered at present as specializations for the B. Tech. Courses with English as medium of Instruction.

S. No	Branch	Branch Code
01	Electrical and Electronics Engineering	EEE
02	Mechanical Engineering	MEC
03	Electronics and Communication Engineering	ECE
04	Computer Science and Engineering	CSE
05	Computer Science and Systems Engineering	CSS
06	Computer Science and Information Technology	CIT

8. Structure of B.Tech(Regular) Program

S. No.	Category	Breakup of Credits (Total 160)
1	Basic Science Courses(BS)	21
2	Engineering Science Courses(ES)	24
3	Humanities, Social Sciences including Management(HM)	10.5
4	Professional Core Courses (PC)	51
5	Professional Elective Courses (PE)	15
6	Open Elective Courses(OE)	12
7	Skill Oriented Courses (SC)	10
8	Project Work (PJ)	12
9	Summer Internships Course(SI)	4.5
10	Mandatory Courses (MC)	(non-credit)
	Total	160

9. Structure of B.Tech with Honors Program:

a. Students of a Department/Discipline are eligible to opt for Honors Programme offered by the same Department/Discipline.

b. A student shall be permitted to register for Honors program at the beginning of 4th semester provided that the student must have acquired a minimum of 8.0 SGPA upto the end of 2nd semester without any backlogs. In case of the declaration of the 3rd semester results after the commencement of the 4th semester and if a student fails to score the required minimum of 8 SGPA, his/her registration for Honors Programme stands cancelled and he/she shall continue with the regular Programme. The lateral entry students, who obtained First class with 8.0 CGPA or 80% in their diploma course (Polytechnic).

c. Students can select the additional and advanced courses from their respective branch in which they are pursuing the degree and get an honors degree in the same. e.g. If a Mechanical Engineering student completes the selected advanced courses from same branch under this scheme, he/she will be awarded B.Tech. (Honors) in Mechanical Engineering.

d. In addition to fulfilling all the requisites of a Regular B.Tech Programme, a student shall earn 20 additional credits to be eligible for the award of B. Tech (Honors) degree. This is in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline (i.e. 160 credits).The lateral entry students shall be eligible for the award of **B.Tech degree with Honors** if he/she earns 20 credits in addition to the 121 credits.

e. Of the 20 additional Credits to be acquired, 16 credits shall be earned by undergoing specified courses listed as pools, with four courses, each carrying 4 credits. The remaining 4 credits must be acquired through two MOOCs, which shall be domain specific, each with 2 credits and with a minimum duration of 8/12weeks as recommended by the Board of studies.

f. It is the responsibility of the student to acquire/complete prerequisite before taking the respective course. The courses offered in each pool shall be domain specific courses and

advanced courses.

g. The concerned BoS shall decide on the minimum enrolments for offering Honors program by the department. If minimum enrolments criteria are not met then the students shall be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BoS.

h. Each pool can have theory as well as laboratory courses. If a course comes with a lab component, that component has to be cleared separately. The concerned BoS shall explore the possibility of introducing virtual labs for such courses with lab component.

i. MOOC courses must be of minimum 8 weeks in duration. Attendance will not be monitored for MOOC courses. Students have to acquire a certificate from the agencies approved by the BOS with grading or marks or pass/fail in order to earn 4 credits. If the MOOC course is a pass/fail course without any grades, the grade to be assigned will be as decided by the Institution/academic council.

j. The concerned BoS shall also consider courses listed under professional electives of the respective B. Tech programs for the requirements of B. Tech (Honors). However, a student shall be permitted to choose only those courses that he/she has not studied in any form during the Programme.

k. If a student drops or is terminated from the Honors program, the additional credits so far earned cannot be converted into free or core electives; they will remain extra. These additional courses will find mention in the transcript (but not in the degree certificate). In such cases, the student may choose between the actual grade or a "pass (P)" grade and also choose to omit the mention of the course as for the following: All the courses done under the dropped Minors will be shown in the transcript. None of the courses done under the dropped Minor will be shown in the transcript.

l. In case a student fails to meet the CGPA requirement for Degree with Honors at any point after registration, he/she will be dropped from the list of students eligible for Degree with Honors and they will receive regular B.Tech degree only. However, such students will receive a separate grade sheet mentioning the additional courses completed by them.

m. Honors must be completed simultaneously with a major degree program. A student cannot earn Honors after he/she has already earned bachelor's degree.

10. Structure of B.Tech with Minors Program:

a. (i)Students who are desirous of pursuing their special interest areas other than the chosen discipline of Engineering may opt for additional courses in minor specialization groups offered by a department other than their parent department. For example, If Mechanical Engineering student selects subjects from Computer Science and Engineering under this scheme, he/she will get Major degree of Mechanical Engineering with minor degree of Computer Science and Engineering
(ii)Student can also opt for Industry relevant tracks of any branch to obtain the Minor Degree, for example, a B.Tech Mechanical student can opt for the industry relevant tracks like Data Mining track, IOT track, Machine learning track etc.

b. The BOS concerned shall identify as many tracks as possible in the areas of emerging technologies and industrial relevance / demand. For example, the minor tracks can be the

fundamental courses in CSE, ECE, EEE,ME etc or industry tracks such as Artificial Intelligence (AI), Machine Learning (ML), Data Science (DS), Robotics, Electric vehicles, Robotics, VLSI etc.

c. The list of disciplines/branches eligible to opt for a particular industry relevant minor specialization shall be clearly mentioned by the respective BoS.

d. The Institution can offer minor programs in emerging technologies based on expertise in the respective departments or can explore the possibility of collaborating with the relevant industries/agencies in offering the program.

e. The concerned BoS shall decide on the minimum enrolments for offering Minor program by the department. If a minimum enrolments criterion is not met, then the students may be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BoS.

f. A student shall be permitted to register for Minors program at the beginning of 4th semester subject to a maximum of two additional courses per semester, provided that the student must have acquired 8 SGPA (Semester Grade point average) upto the end of 2nd semester without any history of backlogs. It is expected that the 3rd semester results may be announced after the commencement of the 4th semester. If a student fails to acquire 8 SGPA upto 3rd semester or failed in any of the courses, his registration for Minors program shall stand cancelled. An SGPA of 8 has to be maintained in the subsequent semesters without any backlog in order to keep the Minors registration active.

n. A student shall earn additional 20 credits in the specified area to be eligible for the award of B. Tech degree with Minor. This is in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline (i.e. 160 credits). The lateral entry students shall be eligible for the award of **B.Tech degree with Minor** if he/she earns 20 credits in addition to the 121 credits.

g. Out of the 20 Credits, 16 credits shall be earned by undergoing specified courses listed by the concerned BoS along with prerequisites. It is the responsibility of the student to acquire/complete prerequisite before taking the respective course. If a course comes with a lab component, that component has to be cleared separately. A student shall be permitted to choose only those courses that he/she has not studied in any form during the Programme.

h. In addition to the 16 credits, students must pursue at least 2 courses through MOOCs. The courses must be of minimum 8 weeks in duration. Attendance will not be monitored for MOOC courses. Student has to acquire a certificate from the agencies approved by the BOS with grading or marks or pass/fail in order to earn 4 credits. If the MOOC course is a pass/fail course without any grades, the grade to be assigned as decided by the institution/academic council.

i. Student can opt for the Industry relevant minor specialization as approved by the concerned departmental BoS. Student can opt the courses from Skill Development Corporation (APSSDC) or can opt the courses from an external agency recommended and approved by concerned BOS and should produce course completion certificate. The Board of studies of the concerned discipline of Engineering shall review such courses being offered by eligible external agencies and prepare a fresh list every year incorporating latest

skills based on industrial demand.

j. Departmental level committee should be evaluate the grades/marks given by external agencies to a student which are approved by concerned BoS. Upon completion of courses the departmental committee should convert the obtained grades/marks to the maximum marks assigned to that course. The controller of examinations can take a decision on such conversions and may give appropriate grades.

k. If a student drops (or terminated) from the Minor program, they cannot convert the earned credits into free or core electives; they will remain extra. These additional courses will find mention in the transcript (but not in the degree certificate). In such cases, the student may choose between the actual grade or a "pass (P)" grade and also choose to omit the mention of the course as for the following: All the courses done under the dropped Minors will be shown in the transcript. None of the courses done under the dropped Minor will be shown in the transcript.

l. In case a student fails to meet the CGPA requirement for B.Tech degree with Minor at any point after registration, he/she will be dropped from the list of students eligible for degree with Minors and they will receive B. Tech degree only. However, such students will receive a separate grade sheet mentioning the additional courses completed by them.

m. Minor must be completed simultaneously with a major degree program. A student cannot earn the Minor after he/she has already earned bachelor's degree.

11. Program Structure, Method of Evaluation &Distribution and Weightage of Marks:

The Outcome Based Curriculum Structure consists of courses of study viz. Theory, Practical, Drawing, Socially relevant projects, Mini project, Project, Mandatory courses, Skill oriented courses, MOOCs, Summer Internship. Under Choice Based Credit System (CBCS), the students also have the flexibility to choose one elective from the list of open electives offered by other branches of engineering technology in consultation with their respective departments.

a. **Theory Subject:** The performance of a student in each semester shall be evaluated subject–wise with a maximum of 100 marks for theory subject. The distribution shall be 30 marks for Internal Evaluation and 70 marks for the Semester End -Examinations.

(i) Internal Evaluation:

i. The weightage of Internal marks for 30 consists of Descriptive–20, Quiz-5 and Assignment-5(Theory).

ii. Two descriptive examinations shall be conducted during the semester for theory subjects.

iii. As the syllabus is framed for 5 units, the 1st and 2nd mid examinations(Descriptive exam) are conducted on 1-2½ units and 2½ -5 units respectively for each subject in a semester. The mid examination (Descriptive exam) question paper shall contain 3 questions and all questions need to be answered in 90 minutes duration for 30 marks. Further, each mid examination marks shall be scale down to 10 marks.

iv. Assignments: The weightage of Assignments is 5 marks during the semester for each theory subjects. However, maximum of 1 marks shall be given for each unit.

v. Quiz: The weightage of Quiz is 5 marks during the semester for each theory subjects. However, maximum of 1 marks shall be given for each unit.

vi. Internal Marks can be calculated for 30 marks by adding the marks of 1st mid, 2ndmid, Quiz and Assignments.

(ii) Semester End -Evaluation:

i. The end semester examination is conducted covering the topics of all Units for 70 marks. And the question paper contains 5 Questions with internal choice.

ii. The question paper contains 5 Questions with internal choice. A student should be answered all Questions and each carrying14 marks.

b. **Practical Subject:** The performance of a student in each semester shall be evaluated subject–wise with a maximum of 75 marks for practical subject. For practical subjects there shall be continuous evaluation during the semester for 25 internal marks and 50 end examination marks.

(i) **Internal Evaluation:** The internal 25 marks shall be awarded as follows: day to day work - 10 marks, Record-5 marks and the remaining 10 marks to be awarded by conducting an internal laboratory test.

(ii) **External Evaluation:** The end examination shall be conducted by the teacher concerned and an external examiner nominated by the Controller of Examinations (CoE).

c. **Project Work:** The project work shall be carried out during the 8th semester. Projects will be taken up batch wise. Internal evaluation will be done by the Project Review Committee (PRC), comprising of HOD, project co-ordinator and two senior faculty members along with the project supervisor. Semester end evaluation will be done by Project Evaluation Committee (PEC) comprising of three members including HOD, project guide and an external examiner nominated by the CoE.

The performance of a student shall be evaluated subject–wise with a maximum of 200 marks for project work. Out of a total of 200 marks for the project work, 60 marks shall be for Internal Evaluation and 140 marks for the End Semester Examination.

(i) **Internal Evaluation:** The Internal Evaluation shall be given by each student on the topic of his project and evaluated by an internalcommittee.

(ii) **External Evaluation:** The End Semester Examination (Viva – Voce) shall be conducted by the committee. The committee consists of an external examiner, Head of the Department and Supervisor of the Project. The evaluation of project work shall be conducted at the end of the IV year.

d. **Design/Drawing Subjects:** For the subject having design and / or drawing, (such as Engineering Graphics, Engineering Drawing, Machine Drawing) and estimation, the distribution shall be 30 marks for internal evaluation (20 marks for day – to – day work, and 10 marks for internal tests) and 70marks for end examination.

(i) **Internal Evaluation:**

There shall be two internal tests in a Semester and the Marks for 10 can be calculated with 50% weightage for each of two tests and these are to be added to the marks obtained in day to day work.

(ii) **Semester End -Evaluation:**

a. The end semester examination is conducted covering the topics of all Units for 70 marks. And the question paper contains 5 Questions with internal choice.

b. The question paper contains 5 Questions with internal choice. A student should be answered all Questions and each carrying 14 marks.

e. **Mandatory Courses:** Mandatory courses are among the compulsory courses and do not carry any credits.

    i. All the students (regular and lateral entry students) shall complete the mandatory courses similar to other regular courses.

    ii. The weightage of Mandatory Courses for 50 consists of Descriptive–30, Objective -10, Assignments-10.

    iii. Two descriptive examinations shall be conducted during the semester for theory subjects.

    iv. As the syllabus is framed for 5 units, the 1st and 2nd mid examinations (Descriptive exam) are conducted on 1-2½ units and 2½ -5 units respectively for each subject in a semester. The mid examination (Descriptive exam) question paper shall contain 3 questions and all questions need to be answered in 90 minutes duration for 30 marks. Further, each mid examination marks shall be scale down to 15 marks.

    v. The objective examination is for 20 minutes duration. Objective -10 (Conducted at College level with 20 Multiple choice question with a weightage of ½ Mark each).

    vi. Assignments: The weightage of Assignments is 10 marks during the semester for each theory subjects. However, maximum of 2 marks shall be given for each unit.

    vii. The Objective examination conducted for 10 marks and Descriptive examination conducted for 30, Assignments 10 marks are to be added for finalizing internal marks for 50.

    viii. The results will be indicated with "Satisfactory" and it will not be accounted for the calculation of CGPA.

    ix. Student shall be declared to have passed the Mandatory Courses only when he/she secures 40% or more in the final marks. In case, the student fails, a re-examination on descriptive shall be conducted for failed candidates every six months/semester at a mutually convenient date of the college/students.

    x. The internal evaluation will be conducted. No external evaluation will be conducted.

Marks Percentage	Letter Grade	Level	Grade Point
≥ 40%	SA	Satisfactory	0
<40%	US	Un-Satisfactory	0

f. **MOOCs:** Meeting with the global requirements, to inculcate the habit of self-learning and in compliance with UGC guidelines, MOOC (Massive Open Online Course) have been introduced.

    i. All departments will declare the list of the courses at the beginning of the semester, with duration of minimum of 8 weeks in a given semester.

    ii. Course content for the selected MOOCs shall be drawn from respective MOOCs links or shall be supplied by the department. Course will be mentored by faculty members and assessment & evaluation of the courses shall be done by the department.

    iii. A student should complete atleast two MOOCs courses with minimum 8/12 weeks

duration and no credits will be awarded upon successful completion of each MOOCs.

    iv. The results will be indicated with "Satisfactory" and it will not be accounted for the calculation of CGPA.

g. **Summer Internship:** As a part of curriculum in all branches of engineering, it is mandatory for all students to undergo two summer internship programme at industries (core or allied) / R & D organization to get practical insight of their subject domain during summer break

    i.   Two summer internships each with a minimum of six weeks duration, done at the end of second and third years, respectively are mandatory. The internship can be done by the students at local industries, Govt. Organizations, construction agencies, Industries, Hydel and thermal power projects and also in software MNCs.

    ii. Evaluation of the summer internships shall be through the departmental committee. A student will be required to submit a summer internship report to the concerned department and appear for an oral presentation before the departmental committee. The report and the oral presentation shall carry 40% and 60% weightages respectively.

    iii. In the final semester, the student should mandatorily undergo internship and parallelly he/she should work on a project with well-defined objectives. At the end of the semester the candidate shall submit an internship completion certificate and a project report. A student shall also be permitted to submit project report on the work carried out during the internship. The project report shall be evaluated with an external examiner.

    iv. The College shall facilitate and monitor the student internship programs. Completion of internships is mandatory, if any student fails to complete internship, he/she will not be eligible for the award of degree. In such cases, the student shall repeat and complete the internship.

h. Skill Oriented Courses:

a. For skill oriented/skill advanced course, one theory and 2 practical hours or two theory hours may be allotted as per the decision of concerned BOS.

b. Out of the five skill courses two shall be skill-oriented courses from the same domain and shall be completed in second year. Of the remaining 3 skill courses, one shall be necessarily be a soft skill course and the remaining 2 shall be skill-advanced courses either from the same domain or Job oriented skill courses, which can be of inter disciplinary nature.

c. A pool of interdisciplinary job-oriented skill courses shall be designed by a common Board of studies by the participating departments/disciplines and the syllabus along with the pre requisites shall be prepared for each of the laboratory infrastructure requirements. The list of such courses shall be included in the curriculum structure of each branch of Engineering, so as to enable the student to choose from the list.

d. The student shall be given an option to choose either the skill courses being offered by the college or to choose a certificate course being offered by industries/ Professional bodies/ APSSDC or any other accredited bodies as approved by the

concerned BoS.

e. The Board of studies of the concerned discipline of Engineering shall review the skill advanced courses being offered by eligible external agencies and prepare a fresh list every year incorporating latest courses based on industrial demand.

f. If a student chooses to take a Certificate Course offered by industries/Professional bodies/APSSDC or any other accredited bodies, in lieu of the skill advanced course offered by the Department, the credits shall be awarded to the student upon producing the Course Completion Certificate from the agency/professional bodies as approved by the Board of studies.

g. If a student prefers to take a certificate course offered by external agency, the department shall mark attendance of the student for the remaining courses in that semester excluding the skill course in all the calculations of mandatory attendance requirements upon producing a valid certificate as approved by the concerned Board of Studies, the student is deemed to have fulfilled the attendance requirement of the course and acquire the credits assigned to the course.

h. A committee shall be formed at the level of the college to evaluate the grades/marks given for a course by external agencies and convert to the equivalent marks/grades. The recommended conversions and appropriate grades/marks are to be approved by the BOS.

i. **Induction Program:** Induction Program will be conducted before commencement of I year I semester class work with 2 weeks duration. If the student is admitted after induction program, then college will arrange induction program classes in the free hours. Student should attend the induction program with 75% of attendance. Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations etc., shall be included in the guidelines issued by AICTE.

j. **NCC/NSS activities:** A student will be required to participate in an activity for two hours in a week during second and third semesters. Grade shall be awarded as Satisfactory or Unsatisfactory in the mark sheet on the basis of participation, attendance, performance and behavior. If a student gets an unsatisfactory Grade, he/she shall repeat the above activity in the subsequent years, in order to complete the degree requirements.

No	Course	Credits	Marks for Assessment	
			Internal	**Semester End**
1	Theory Course	3	30	70
2	Laboratory	1.5	25	50
3	Drawing Course	3	30	70
4	Elective Courses	3	30	70
5	Project Work	12	60	140
6	Summer Internship	4.5	100	-
7	Mandatory Courses	0	50	-
8	Skill oriented Courses	10	100	-

12. Attendance Requirements:

a. A student is eligible to write the semester examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.

b. Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester may be granted by the College Academic Committee. Further, he acquires a minimum of 50% of attendance in each the subject.

c. Shortage of attendance below 65% in aggregate shall not be condoned.

d. Students whose shortage of attendance is not condoned in any semester are not eligible to write their corresponding end semester examination.

e. The maximum number of times a student can avail condonation should be 3 times in all the 8 semesters.

f. A stipulated fee shall be payable towards condonation of shortage of attendance.

g. A student who is short of attendance in semester may seek re-admission into that semester when offered within 4 weeks from the date of the commencement of class work.

h. A student will be promoted to the next semester if he/she satisfies the (i) attendance requirement of the present semester and (ii) minimum required credits.

i. If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.

13. Minimum Academic Requirements:

The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no 12.

a. A student is deemed to have satisfied the minimum academic requirements if he/she has earned the credits allotted to each theory/practical design/drawing subject/project by securing not less than 35% of marks in the end semester exam, and minimum 40% of marks in the sum total of the internal marks and end semester examination marks.

b. A student shall be promoted from first year to second year if he fulfills the minimum attendance requirement.

c. A student will be promoted from II year to III year if he fulfills the academic requirement of 40% of the credits up to either II year I semester or II year II semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in II year II semester.

d. A student shall be promoted from III year to IV year if he fulfills the academic requirements of 40% of the credits upto either II I year I semester or III year II semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in III year II semester.

e. A student shall register and put up minimum attendance in all 160 credits and earn all 160 credits.

14. Course Pattern:

a. The entire course of study is for four academic years; all the years are on semester pattern.

b. A student eligible to appear for the end semester examination in a subject, but absent from it or has failed in the end semester examination, may write the exam in that subject when conducted next.

c. When a student is detained for lack of credits/shortage of attendance, he/she may be re-admitted into the same semester / year in which he has been detained. However, the academic regulations under which he/she was first admitted shall continue to be applicable to him/her.

15. Cumulative Grade Point Average (CGPA)

After each subject is evaluated for 100 marks, the marks obtained in each subject will be converted to a corresponding letter grade as given below, depending on the range in which the marks obtained by the student fall.

Marks Range Theory (Max – 100)	Marks Range Lab (Max – 75)	Letter Grade	Level	Grade Point
≥ 90	≥ 67	A+	Outstanding	10
≥80 to <90	≥60 to <67	A	Excellent	9
≥70 to <80	≥52 to <60	B	Very Good	8
≥60 to <70	≥45 to <52	C	Good	7
≥50 to <60	≥37 to <45	D	Fair	6
≥40 to <50	≥30 to <37	E	Satisfactory	5
<40	<30	F	Fail	0
		Ab	Absent	0

i. Computation of SGPA: The following procedure is to be adopted to compute the Semester Grade Point Average. (SGPA) and Cumulative Grade Point Average (CGPA): The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.,

$$SGPA \ (Si) = \sum (Ci \ X \ Gi) \ / \sum Ci$$

Where C_i is the number of credits of the ith course and G_i is the grade point scored by the student in the ith course.

ii. *Computation of CGPA:* The CGPA is also calculated in the same manner taking into account all the courses under gone by a student over all the semester of a programme, i.e.$CGPA = \sum (Ci \ X \ Si) \ / \sum Ci$ Where Si is the SGPA of the ith semester and Ci is the total number of credits in that semester.

iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

iv. Equivalent Percentage =(CGPA-0.75)x10

v. Grade Point: It is a numerical weight allotted to each letter grade on a 10-point scale.

vi. Letter Grade: It is an index of the performance of students in a said course. Grades are denoted by letters A+, A, B, C, D, E and F.

16. Award of Class:

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B. Tech. degree, he/she shall be placed in one of the following:

Class Awarded	CGPA Secured	
First Class with Distinction	≥ 7.75(without any backlogs)	**From the CGPA secured from 160 Credits.**
First Class	≥ 6.5 < 7.75	
Second Class	≥ 5.5 < 6.75	
Pass Class	≥ 4.0 < 5.75	

17. Minimum Instruction Days:

For all the eight semesters a common academic calendar shall be followed in each semester by having sixteen weeks of instruction, one week for the conduct of practical exams and with three weeks for theory examinations and evaluation. Further, the minimum instruction days for each semester shall be 90 days. Dates for registration, sessional and end semester examinations shall be notified in the academic calendar of every semester. The schedule for the conduct of all the curricular and co-curricular activities shall be notified in the academic plan.

18. Gap - Year: Gap Year – concept of Student Entrepreneur in Residence shall be introduced and outstanding students who wish to pursue entrepreneurship are allowed to take a break of one year at any time after I year/II year/III year to pursue entrepreneurship full time. This period shall be counted for the maximum time for graduation. An evaluation committee at college level shall be constituted to evaluate the proposal submitted by the student and the committee shall decide on permitting the student for availing the Gap Year.

19. There shall be no branch transfers after the completion of the admission process.

20. Withholding of Results: If any case of indiscipline is pending against him, the result of the student will be withheld. His degree will be withheld in such cases.

21. Transitory Regulations:

a. Discontinued or detained candidates are eligible for readmission in the next following academic years.

b. A student in one academic regulation of JNTUK, detained due to lack of required number of credits or percentage of attendance at the end of any semester is permitted to take re-

admission at appropriate level in any other scheme prevailing in the institute subject to the following rules and regulations.

    i. Student shall pass all the courses in the earlier scheme of JNTUK. However, in case of having backlog courses, they shall be cleared by appearing for supplementary examinations conducted by JNTUK from time to time.

    ii. After readmission, the student is required to study the courses as prescribed in the JNTUK regulations for the re-admitted program at that level and thereafter.

c. A student in one academic regulation under autonomous, detained due to lack of required number of credits or percentage of attendance at the end of any semester is permitted to take re-admission at appropriate level in any other scheme prevailing in the institute subject to the following rules and regulations.

    i. Student shall pass all the courses in the earlier scheme. However, in case of having backlog courses, they shall be cleared by appearing for supplementary examinations conducted by college in their regulations from time to time.

    ii. After readmission, the student is required to study the courses as prescribed in the new regulations for the re-admitted program at that level and thereafter.

    iii. If the student has already passed any courses of readmitted program in the earlier regulation/semester of study, such courses are exempted.

    iv. The courses that are not done in the earlier regulations/semester as compared with readmitted program need to be cleared after readmission by appearing for the examinations conducted time to time under the new regulations.

    v. In general, after transition, course composition and number of credits/semester shall be balanced between old and new regulations on case to case basis.

    vi. In case the students who do not have option of acquiring required credits with the existing courses offered as per the curriculum under autonomy, credit balance can be achieved by clearing the additional/substitute courses offered.

d. (i) In case of transferred students from other Universities, the credits shall be transferred to this institution as per the academic regulations and course structure of this institution**.**

    (ii)The students seeking transfer to colleges affiliated to JNTUK from various other Universities/Institutions have to obtain the credits of any equivalent subjects as prescribed by this institution. In addition, the transferred candidates have to pass the failed subjects at the earlier institute with already obtained sessional marks to be conducted by this institution.

e. The decision of the Principal is final on any other clarification in this regard.

22. Conduct and Discipline:

    a. Candidates shall conduct themselves within and outside the premises of the institute in a manner befitting the candidates of our institution.

    b. As per the order of Honourable 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.

23 Malpractices:

a. The Principal shall refer the cases of malpractices in internal assessment tests and semester-end examinations to a malpractice enquiry committee constituted by him / her for the purpose. Such committee shall follow the approved scales of punishment. The principal shall take necessary action, against the erring candidates basing on the recommendations of the committee.

b. Any action on the part of a candidate during an examination trying to get undue advantage or trying to help another, or drive the same through unfair means is punishable according to the provisions contained hereunder. The involvement of the staff, who are in-charge of conducting examinations, valuing examination papers and preparing / keeping records of documents relating to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned in the examination shall be viewed seriously and recommended for award of appropriate punishment after thorough enquiry.

24 General:

a. Whereverthewords"he","him","his",occur in the regulations, they include "she", "her","hers".

b. The academic regulation should be read as a whole for the purpose of any interpretation.

c. In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Institute academic counsel is final.

d. The Institution may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the Institution.

Academic Regulations For B. Tech. (Lateral Entry Scheme)

The following academic regulation will be applicable for the students admitted into II year B. Tech. from the Academic Year 2021-22 onwards.

1. **Eligibility for Admission**:

II Year B.Tech(U.G) : Under Lateral Entry Scheme students with Diploma/B.Sc qualification have an option of direct admission into 2nd year B.Tech. (Lateral Entry Scheme). Under this scheme 10% seats of sanctioned intake will be available in each course as supernumerary seats as per Andhra Pradesh State Council for Higher Education (APSCHE). Admissions to this three year B.Tech Later Entry Programme will be through ECET as per government policy.

2. **Award of B. Tech.Degree**

A student will be declared eligible for the award of B. Tech. Degree if he fulfills the following academic regulations:

    a. A student shall be declared eligible for the award of the B. Tech Degree, if he pursues a course of study in not less than three academic years and not more than six academic years.

    b. The candidate shall register for 121 credits and secure all the 121 credits.

    c. A student shall be eligible for the award of **B.Tech degree with Honors or Minor** if he/she earns 20 credits in addition to the 121 credits. A student shall be permitted to register either for Honors or for Minor and not for both simultaneously.

3. The attendance regulations of B.Tech.(Regular) shall be applicable to B.Tech.

4. Promotion Rule

    a. A student shall be promoted from second year to third year if he fulfills the minimum attendance requirement.

    b. A student shall be promoted from III year to IV year if he fulfills the academic requirements of 40% of the credits up to either III year I semester or III year II semester from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in IIIyear IIsemester.

5. Award ofClass

After a student has satisfied the requirement prescribed for the completion of the program and is eligible for the award of B.Tech Degree, he shall be placed in one of the following four classes:

Class Awarded	CGPA to be secured	
First Class with Distinction	≥ 7.75 (without any backlogs)	**From the CGPA secured from121 Credits from II Year to IV Year**
First Class	≥ 6.75	
Second Class	≥ 5.75 to < 6.75	
Pass Class	≥ 4.75 to < 5.75	

The marks obtained in the internal evaluation and the end semester examination shall be shown separately in the marks memorandum.

6. All the other regulations as applicable to B. Tech. 4-year degree course (Regular, Honor, Minors) will hold good for B.Tech (Lateral Entry Scheme).