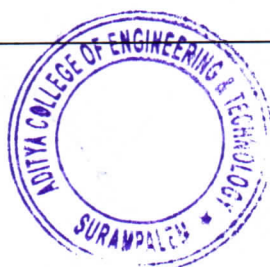


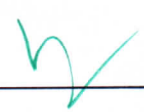
ACADEMIC REGULATIONS
COURSE STRUCTURE & DETAILED SYLLABUS

For
B.Tech FOUR YEAR DEGREE COURSE
(Applicable for the batches admitted from 2019-20)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533003, ANDHRA PRADESH, INDIA




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ACADEMIC REGULATIONS (R19) FOR B. TECH. (REGULAR)

Applicable for students of B. Tech. (Regular) from Academic Year 2019-20 onwards

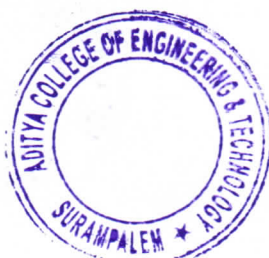
Jawaharlal Nehru Technological University Kakinada (JNTUK) 2019 Regulations (R19 Regulations) applicable to all affiliated colleges are given hereunder. These regulations govern the B. Tech programmes offered by all affiliated colleges with effect from the students admitted to the programmes in academic year 2019-20.

1. Courses of study:

The following courses of study are offered at present as specializations for the B. Tech. Courses in the jurisdiction of all affiliated colleges of JNTUK.

S. No	Branch	Short Name	Code
1	Civil Engineering	CE	01
2	Electrical & Electronics Engineering	EEE	02
3	Mechanical Engineering	ME	03
4	Electronics and Communication Engineering	ECE	04
5	Computer Science Engineering	CSE	05
6	Electronics and Instrumentation Engineering	EIE	10
7	Information Technology	IT	12
8	Automobile Engineering	AME	24
9	Mining Engineering	MM	26
10	Petroleum Engineering	PE	27
11	Agriculture Engineering	AGE	35

- 2. 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.
- 3. Admissions:** Admission to the B. Tech Programme shall be made subject to the eligibility, qualifications and specialization prescribed by the A.P. State Government/University from time to time. Admissions shall be made either on the basis of the merit rank obtained by the student in the common entrance examination conducted by the A.P. Government/University or on the basis of any other order of merit approved by the A.P. Government/University, subject to reservations as prescribed by the Government/University from time to time.
- 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.




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- 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. **Subject/Course Classification:** All subjects/courses offered for the undergraduate programme in E & T (B. Tech degree programmes) are broadly classified as follows.

S. No	Broad Course Classification	Course Group/Category	Course Description
1	BS	Basic Science Courses	Basic Science Courses
2	ES	Engineering Science Courses	Includes Engineering subjects
3	HS	Humanities and Social sciences	Includes Management courses
4	PC	Professional Core Courses	Includes core subjects related to the parent discipline/ department/ branch of Engineering.
5	PE	Professional Elective Courses	Includes elective subjects related to the parent discipline/ department/ branch of Engineering.
6	OE	Open Elective Courses	Electives from other technical and/or emerging subjects
7	LC	Laboratory Courses	Laboratory Courses
8	MC	Mandatory Courses	Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Traditional Knowledge
9	PR	Project Work	Project work, seminar and internship in industry or elsewhere

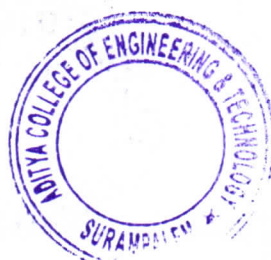
6. **Award of B. Tech. Degree:** A student will be declared eligible for the award of B. Tech. Degree if he fulfills the following academic regulations:

- i. A student shall be declared eligible for award of the B. Tech Degree, if he pursues a course of study in not less than four and not more than eight academic years.
- ii. 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.
- iii. The student shall register for 160 credits and must secure all the 160 credits.
- iv. Credit Definition:

1 Hour Lecture (L) per week	1 Credit
1 Hour Tutorial (T) per week	1 Credit
1 Hour Practical (P) per week	0.5 Credit
2 Hours Practical(Lab) per week	1 Credit

7. Attendance Requirements

- (a) A student is eligible to write the University examinations if he acquires a minimum of 50% in each subject and 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%) may be granted by the College Academic Committee. However this




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condonation concession is applicable only to any two semesters during the entire programme.

- (c) Shortage of Attendance below 65% in aggregate shall not be condoned.
 - (d) A student who is short of attendance in a semester may seek re-admission into that semester when offered within 4 weeks from the date of commencement of class work.
 - (e) Students whose shortage of attendance is not condoned in any semester are not eligible to write their end semester examination of that class.
 - (f) A stipulated fee of Rs. 500/- shall be payable towards condonation of shortage of attendance.
 - (g) A student will be promoted to the next semester if he satisfies the (i) attendance requirement of the present semester and (ii) minimum required credits.
 - (h) If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.
8. Question paper setting- Distribution and Weightage of marks - Evaluation and Assessment:
- (i) Paper setting and evaluation of the answer scripts shall be done as per the procedures laid down by the University Examination section from time to time.

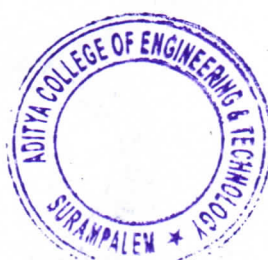
(ii) Distribution and Weightage of marks:

The assessment of the student's performance in each course will be based on Continuous Internal Evaluation (CIE) and Semester-End Examination (SEE). The performance of a student in each semester shall be evaluated subject-wise with a maximum of 100 marks for theory subject and 50 marks for practical subject. For theory subjects the distribution shall be 25 marks for Internal Evaluation and 75 marks for the End Examinations.

S. No	Components	Internal	External	Total
1	Theory	25	75	100
2	Engineering Graphics/Design/Drawing	25	75	100
3	Practical	20	30	50
4	Mini Project/Internship/Industrial Training/ Skill Development programmes/Research Project	-	50	50
5	Project Work – Part I	20	30	50
5	Project Work – Part II	60	90	150

(iii) Continuous Internal Theory Evaluation:

For theory subjects, during a semester, there shall be two mid-term examinations. Each mid-term examination consists of (i) one online objective examination (ii) one descriptive examination and (iii) one assignment. The online examination (objective) and descriptive examination shall be for 10 marks each with a total duration of 1 hour 50 minutes (20 minutes for objective and 90 minutes for descriptive paper). The online examination (objective) is set with 20 multiple choice questions for 10 marks (20 questions x ½ marks) from first two and half units (50% of the syllabus) and it is conducted by **University Examination Section**. The descriptive examination is set with 3 full questions from first two and half units (50% of the syllabus), the student has to answer all questions. The second online examination shall be conducted on the rest of the syllabus. The assignment is given by the concerned class teacher for five marks from first two and half units (50% of the syllabus). The second assignment shall given from rest of the syllabus. The first assignment should be submitted before the conduct of the first mid-term examination, and the second



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assignment should be submitted before the conduct of the second mid-term examination. The total marks secured by the student in each mid-term examination are evaluated for 25 marks. The first mid marks (Mid-1) consisting of marks of online objective examination, descriptive examination and assignment shall be submitted to the University examination section within one week after completion of first mid examination. The mid marks submitted to the University examination section shall be displayed in the concerned college notice boards for the benefit of the students. If any discrepancy found in the submitted mid-1 marks, it shall be brought to the notice of university examination section within one week from the submission. Second mid marks (Mid-2) consisting of marks of online objective examination, descriptive examination and assignment shall also be submitted to University examination section within one week after completion of second mid examination and it shall be displayed in the notice boards. If any discrepancy found in the submitted mid-2 marks, it shall be brought to the notice of university examination section within one week from the submission. Internal marks can be calculated with 80% weightage for better of the two mids and 20% Weightage for other mid exam.

Example:

Mid-1 marks = Marks secured in (online examination-1+descriptive examination-1+one assignment-1)

Mid-2 marks = Marks secured in (online examination-2+descriptive examination-2+one assignment-2)

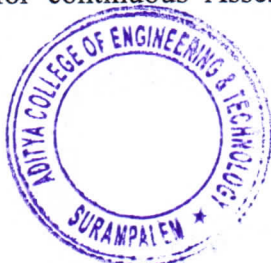
Final internal Marks = (Best of (Mid-1/Mid-2) marks x 0.8 + Least of (Mid-1/Mid-2) marks x 0.2)

With the above criteria, university examination section will send mid marks of all subjects in consolidated form to all the concerned colleges and same shall be displayed in the concerned college notice boards. If any discrepancy found, it shall be brought to the notice of university examination section through proper channel within one week with all proofs. Discrepancies brought after the given deadline will not be entertained under any circumstances.

- (iv) **Semester End Theory Examinations Evaluation:** The semester end examinations will be conducted university examination section for 75 marks consists of five questions carrying 15 marks each. Each of these questions is from one unit and may contain sub-questions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions.
- (v) For practical subjects there shall be continuous evaluation during the semester for 20 internal marks and 30 end examination marks. The internal 20 marks shall be awarded as follows: day to day work - 5 marks, Record-5 marks and the remaining 10 marks to be awarded by conducting an internal laboratory test. The end examination shall be conducted by the teacher concerned and external examiner appointed by controller of examinations, JNTUK.

Note: Laboratory marks and the internal marks awarded by the College are not final. The marks are subject to scrutiny and scaling by the University wherever felt desirable. The internal and laboratory marks awarded by the College will be referred to a Committee. The Committee shall arrive at a scaling factor and the marks will be scaled as per the scaling factor. The recommendations of the Committee are final and binding. All the laboratory records and internal test papers shall be preserved in respective departments as per University norms and shall be produced to the Committees of University as and when they ask for.

- (vi) For the subject having design and / or drawing, (such as Engineering Graphics, Engineering Drawing, Machine Drawing) and estimation, the distribution shall be 25 marks for internal evaluation (15 marks for continuous Assessment (day-to-day work) and 10 marks for



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internal tests) and 75 marks for end examination. There shall be two internal tests in a Semester for 10 marks each and final marks can be calculated with 80% weightage for better of the two tests and 20% weightage for other test and these are to be added to the marks obtained in day to day work.

(vii) *Project Work I:*

The object of Project Work I is to enable the student to take up investigative study in the broad field of concerned branch of specialization, either fully theoretical/practical or involving both theoretical and practical work to be assigned by the Department on an individual basis or a group of students, under the guidance of a Supervisor. This is expected to provide a good initiation for the student(s) in R&D work. The assignment to normally include:

- a) Survey and study of published literature on the assigned topic;
- b) Working out a preliminary approach to the problem relating to the assigned topic;
- c) Conducting preliminary Analysis/Modeling/Simulation/Experiment/Design/ Feasibility
- d) Preparing a written report on the study conducted for presentation to the department;
- e) Final Seminar, as oral Presentation before a departmental committee.
- f) The evaluation of the Project Work I will be done as per the procedure suggested by the university

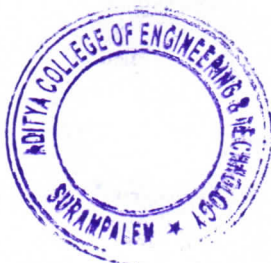
Evaluation: The total marks for Project Work I is 50 marks and distribution shall be 20 marks for internal and 30 marks for external evaluation. The supervisor assesses the student for 10 marks (Continuous Assessment: 5 marks, Report –5 marks). At the end of the semester, projects shall be showcased at the department for the benefit of all students and staff and the same is to be evaluated by the departmental Project Review Committee consists of supervisor, a senior faculty and HOD for 10 marks. The external evaluation of Project Work I is a Viva-Voce Examination conducted in the presence of internal examiner and external examiner appointed by the University and is evaluated for 30 marks.

(viii) *Project Work II:*

The object of Project Work II & Dissertation is to enable the student to extend further the investigative study taken up under Project Work I, either fully theoretical/practical or involving both theoretical and practical work, under the guidance of a Supervisor from the Department alone or jointly with a Supervisor drawn from R&D laboratory/Industry. This is expected to provide a good training for the student(s) in R&D work and technical leadership. The assignment to normally include:

- a) In depth study of the topic assigned in light of Report prepared under Project Work I;
- b) Review and finalization of the approach to the problem relating to the assigned topic;
- c) Preparing an Action Plan for conducting the investigation, including team work;
- d) Detailed Analysis/Modeling/Simulation/Design/Problem Solving/Experiment as needed;
- e) Final development of product/process, testing, results, conclusions and future directions;
- f) Preparing a paper for Conference presentation/publication in Journals, if possible;
- g) Preparing a dissertation in the standard format for being evaluated by the department;
- h) The evaluation of the Project Work II will be done as per the procedure suggested by the university.

Evaluation: The total marks for project work II is 150 marks and distribution shall be 60 marks for internal and 90 marks for external evaluation. The supervisor assesses the student for 30 marks (Continuous Assessment: 15 marks, Report –15 marks). At the end of the semester, projects shall be showcased at the department for the benefit of all students and staff and the same is to be evaluated by the departmental Project Review Committee



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consisting of supervisor, a senior faculty and HOD for 30 marks. The external evaluation of Project Work II is a Viva-Voce Examination conducted in the presence of internal examiner and external examiner appointed by the University and is evaluated for 90 marks.

Note: Project Work II is a continuation of Project Work I with same supervisor and it is not allowed to change the topic and area. If the Project is continued at R&D laboratory/Industry, another supervisor may be added from the concerned organization.

- (ix) **For Socially Relevant Project** there shall be continuous evaluation during the semester for 20 internal marks and 30 external marks.

Internal Evaluation (20 Marks): Two internal evaluations in the form of presentations (First one before I Mid-term and Second one before the II-Mid-term examinations) shall be conducted by the supervisor and a faculty member nominated by the HOD. For a total of 20 marks, 80% of best one of the two evaluation and 20% of the other evaluation are added and finalized.

External Semester Evaluation (30 Marks): A report on socially relevant project shall be submitted by group of students to the department at the end of the semester. The Viva-Voce examination shall be conducted by the committee consisting of internal examiner (supervisor) and external examiner appointed by the University. The Viva-Voce examination shall be planned along end semester practical examinations.

- (x) **Mandatory Course (M.C):** There shall be Mandatory Course with zero credits. There shall be no external examination. However, a minimum of 75% attendance is mandatory in that particular subject.

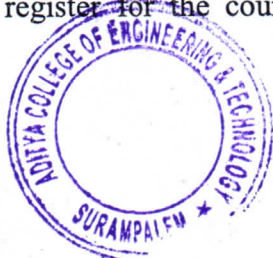
- (xi) **Engineering Exploration Course:** The motivation of including Engineering Exploration Project in the curriculum is to make the students practice creative problem solving method - Design Thinking which fosters collaboration and solve problems in human-centered ways. It enables the students to exercise and identify design opportunities through various phases with the help of hands-on activities. Obtaining a best solution for an identified problem involves a non-linear, iterative process which seeks to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. The students are encouraged to explore real-world problems and expected to take charge of their own learning, work together in teams towards the problem. The evaluation of the Engineering Exploration Project involves in writing their observations in Activity Cards at the end of each task given in syllabus and submitting a final report along with working prototype.

Evaluation: For Engineering Exploration Project there shall be continuous evaluation during the semester for 20 internal marks and 30 external marks.

Internal Evaluation (20 Marks): Two internal evaluations in the form of presentations (First one before I Mid-term and Second one before the II-Mid-term examinations) shall be conducted by the supervisor and a faculty member nominated by the HOD. For a total of 20 marks, 80% of best one of the two evaluation and 20% of the other evaluation are added and finalized.

External Semester Evaluation (30 Marks): A report on socially relevant project shall be submitted by group of students to the department at the end of the semester. The Viva-Voce examination shall be conducted by the committee consisting of internal examiner (supervisor) and external examiner appointed by the University. The Viva-Voce examination shall be planned along end semester practical examinations.

- (xii) **Procedure for Conduct and Evaluation of MOOC:** There shall be a Discipline Centric Elective Course through Massive Open Online Course (MOOC) as Program Elective course. The student shall register for the course (Minimum of 12 weeks) offered by

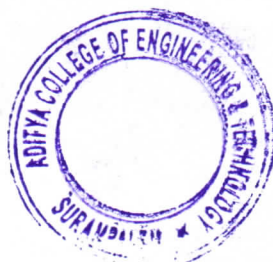


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SWAYAM/NPTEL/JNTUK MOOCS through online with the approval of Head of the Department. The Head of the Department shall appoint one mentor for each of the MOOC subjects offered. The student needs to register the course in the SWAYAM/NPTEL portal in the previous semester. During the course, the mentor monitors the student's assignment submission given by SWAYAM/NPTEL at the end of every week. The student needs to submit all the assignments given and needs to take final exam at the proctor center. The student needs to earn a certificate by passing the exam. The student will be awarded the credits given in curriculum only by submission of the certificate.

For JNTUK MOOCS course, the mentor appointed shall conduct the mid semester examinations as per 8(iii). Further, the University shall conduct the external examination for the MOOC subject in line with other regular subjects based on the syllabi of the respective subject provided in the curriculum. A MOOC course may be studied either in online or in conventional manner. In case if student does not pass in SWAYAM/NPTEL, the alternative subject may be taken from JNTUK MOOCS and has to pass the course as per 8(iii) and 8(iv). Open Electives are evaluated as per 8(iii) and 8(iv).

- (xiii) Mini Project/Internship/Industrial Training/Skill Development programmes/Research Project guidelines: There shall be a Mini Project/Internship/Industrial Training/Skill Development programmes/Research Project, in collaboration with an industry of their specialization. Students shall pursue this course during summer vacation just before its offering as per course structure. The minimum duration of this course is at least 16 hours. The student shall register for the course as per course structure after commencement of academic year. An individual or group of students can take up this course under the guidance of a supervisor from concerned department. The supervisor shall maintain the attendance of the course for the students allotted. Attendance requirements are as per the norms of the University. After completion the students shall submit a technical report and presented before the committee. A certificate from industry/skill development center shall be included in the report. It shall be evaluated for 50 external marks at the end of the semester. The committee consists of an external examiner appointed by the University; Head of the Department, supervisor of the Mini Project/Internship/Industrial Training/Skill Development programmes/Research Project and a senior faculty member of the department. There shall be no internal marks for Industrial Oriented Mini Project/Summer Internship. A student shall secure minimum 40% of marks for successful completion. In case, if a student fails, he/she shall reappear as and when semester supplementary examinations are conducted by the University.
9. Recounting of Marks in the End Semester Examination: A student can request for recounting of his/her answer book on payment of a prescribed fee as per university norms.
10. Re-evaluation or Revaluation by Challenge of the End Semester Examination: A student can request for Revaluation or Revaluation by Challenge of his/her answer book on payment of a prescribed fee as per university norms.
11. Supplementary Examinations: A student who has failed to secure the required credits can appear for a supplementary examination, as per the schedule announced by the University.
12. Malpractices in Examinations: Disciplinary action shall be taken in case of malpractices during Mid/End examinations as per the rules framed by the University.
- 13. Minimum Academic Requirements**
The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no.7.
- a) A student is deemed to have satisfied the minimum academic requirements if he has earned the credits allotted to each theory/practical design/drawing subject/ project etc by securing



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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 together.

- A student shall be promoted from first year to second year if he fulfills the minimum attendance requirement as per University norm.
- A student will be promoted from II year to III year if he fulfills the academic requirement of 40% of 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.
- 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 III year II semester.
- A student shall register and put up minimum attendance in all 160 credits and earn all 160 credits.

14. Course Pattern

- The entire course of study is for four academic years; all years are on semester pattern.
- 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.
- When a student is detained for lack of credits / shortage of attendance, he may be re-admitted into the same semester / year in which he has been detained. However, the academic regulations under which he was first admitted shall continue to be applicable to him.

15. Earning of Credit:

A student shall be considered to have completed a course successfully and earned the credits if he/she secures an acceptable letter grade in the range O-D as given below. Letter grade 'F' in any course implies failure of the student in that course and no credits earned. Absent is also treated as no credits earned.

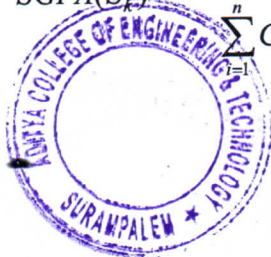
Marks Range Theory (Max – 100)	Marks Range Lab (Max – 75)	Level	Letter Grade	Grade Point
≥ 90	≥ 67	Outstanding	O	10
≥80 to <90	≥60 to <67	Excellent	S	9
≥70 to <80	≥52 to <60	Very Good	A	8
≥60 to <70	≥45 to <52	Good	B	7
≥50 to <60	≥37 to <45	Fair	C	6
≥40 to <50	≥30 to <37	Satisfactory	D	5
<40	<30	Fail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

16. Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- SGPA**(S_k) of kth semester (1 to 8) is 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 total number of credits of all the courses undergone/registered by a student, i.e

$$SGPA(S_k) = \frac{\sum_{i=1}^n (C_i \times G_i)}{\sum_{i=1}^n C_i}$$



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Where C_i is the number of credits of the i^{th} course/subject in a semester and G_i is the grade point scored by the student in the i^{th} course/subject and n is the number of courses/subjects registered in that semester.

- (ii) CGPA: The CGPA is calculated in the same manner taking into account all the 'm' courses/subjects registered by student over all the semesters of a Programme i.e., in all eight semesters

$$CGPA = \frac{\sum_{i=1}^m (C_i \times S_i)}{\sum_{i=1}^m C_i}$$

Where S_i is SGPA of the i^{th} semester and C_i is total number of credits in that semester.

- (iii) SGPA and CGPA shall be rounded off to 2 decimal points and reported in transcripts.

- (iv) As per AICTE regulations, conversion of CGPA into equivalent percentage as follows:

$$\text{Equivalent Percentage} = (CGPA - 0.75) \times 10$$

- (v) Illustration of Computation of SGPA and CGPA

Illustration for SGPA: Let us assume there are 6 subjects in a semester. The grades obtained as follows:

Course	Credit	Grade Obtained	Grade point	$S_i = \text{Credit Point (Credit} \times \text{Grade)}$
Subject 1	3	A	8	$3 \times 8 = 24$
Subject 2	4	B	7	$4 \times 7 = 28$
Subject 3	3	C	6	$3 \times 6 = 18$
Subject 4	3	O	10	$3 \times 10 = 30$
Subject 5	3	D	5	$3 \times 5 = 15$
Subject 6	4	C	6	$4 \times 6 = 24$
	20			139

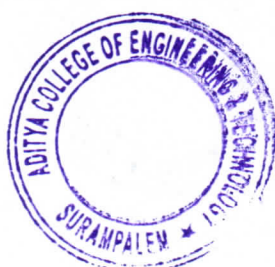
Thus, $SGPA = 139/20 = 6.95 = 6.9$ (approx.)

Illustration for CGPA:

Semester 1	Semester 2	Semester 3	Semester 4
Credit : 20 SGPA: 6.9	Credit : 22 SGPA: 7.8	Credit : 25 SGPA: 5.6	Credit : 26 SGPA: 6.0
Semester 5	Semester 6	Semester 7	Semester 8
Credit : 26 SGPA: 6.3	Credit : 25 SGPA: 8.0	Credit : 21 SGPA: 6.4	Credit : 23 SGPA: 7.5

Thus,

$$CGPA = \frac{20 \times 6.9 + 22 \times 7.8 + 25 \times 5.6 + 26 \times 6.0 + 26 \times 6.3 + 25 \times 8.0 + 21 \times 6.4 + 23 \times 7.5}{188} = \frac{1276.3}{188} = 6.78$$



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17. 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 shall be placed in one of the following four classes:

Class Awarded	CGPA to be secured	Remarks
First Class with Distinction	≥ 7.75 (Without any supplementary appearance)	From the CGPA secured from 160 Credits
First Class	≥ 6.75	
Second Class	≥ 5.75 to < 6.75	
Pass Class	≥ 5.00 to < 5.75	

18. Minimum Instruction Days

The minimum instruction days for each semester shall be 90 working days. There shall be no branch transfers after the completion of the admission process. There shall be no transfer from one college/stream to another within the Constituent Colleges and Units of Jawaharlal Nehru Technological University Kakinada.

19. Withholding of Results

If the student is involved in indiscipline/malpractices/court cases, the result of the student will be withheld.

20. Transitory Regulations

- Discontinued or detained candidates are eligible for re-admission as and when next offered.
- The re-admitted candidate will be governed by the rules & regulations under which the candidate has been admitted.
- In case of transferred students from other Universities, credits shall be transferred to JNTUK as per the academic regulations and course structure of JNTUK.
 - 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 JNTUK. In addition, the transferred candidates have to pass the failed subjects at the earlier Institute with already obtained internal/sessional marks to be conducted by JNTUK.

21. General

- Wherever the words "he", "him", "his", occur in the regulations, they include "she", "her", "hers".
- The academic regulation should be read as a whole for the purpose of any interpretation.
- In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.
- The University 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 University.



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**ACADEMIC REGULATIONS (R19) FOR B. TECH. (LATERAL ENTRY
SCHEME)**

Applicable for the students admitted into II year B. Tech. from the Academic Year 2020-21 onwards

1 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. After six academic years from the year of their admission, he/she shall **forfeit** their seat in B. Tech course and their admission stands cancelled.
- b) The candidate shall register for 120 credits and secure all the 120 credits.

2. The attendance regulations of B. Tech. (Regular) shall be applicable to B.Tech (lateral entry).

3. Promotion Rule

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

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 III year II semester.

4. Award of Class

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	Remarks
First Class with Distinction	≥ 7.75 (Without any supplementary appearance)	From the CGPA secured from 120 Credits from II Year to IV Year
First Class	≥ 6.75	
Second Class	≥ 5.75 to < 6.75	
Pass Class	≥ 5.00 to < 5.75	

The Grades secured, Grade points and Credits obtained will be shown separately in the memorandum of marks.

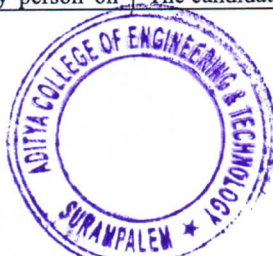
5. All the other regulations as applicable to **B. Tech. 4-year degree course (Regular)** will hold good for **B. Tech. (Lateral Entry Scheme)**.



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MALPRACTICES RULES
DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	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, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he 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 subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(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 exam 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 will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject 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 and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.
3.	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 and forfeits the seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	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.
6.	Refuses to obey the orders of the Chief Superintendent/Assistant – Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case



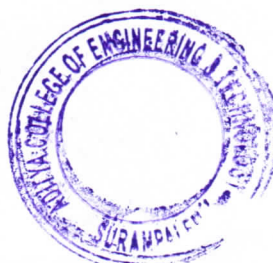
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	duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	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 subjects of that semester/year. The candidate is also debarred and forfeits the seat.
9.	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 mentioned in clause 6 to 8.	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 subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	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 subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action and impose suitable punishment.	

Malpractices identified by squad or special invigilators

1. Punishments to the candidates as per the above guidelines.
2. Punishment for institutions : (if the squad reports that the college is also involved in encouraging malpractices)
 - (i) A show cause notice shall be issued to the college.
 - (ii) Impose a suitable fine on the college.
 - (iii) Shifting the examination centre from the college to another college for a specific period of not less than one year.

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Ragging

Prohibition of ragging in educational institutions Act 26 of 1997

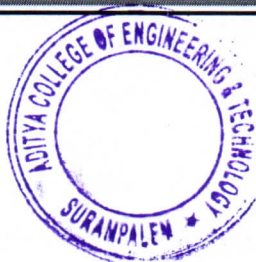
Salient Features

- Ragging within or outside any educational institution is prohibited.
- Ragging means doing an act which causes or is likely to cause Insult or Annoyance of Fear or Apprehension or Threat or Intimidation or outrage of modesty or Injury to a student.

	Imprisonment upto		Fine Upto
Teasing, Embarrassing and Humiliation	 6 Months	+	Rs. 1,000/-
Assaulting or Using Criminal force or Criminal intimidation	 1 Year	+	Rs. 2,000/-
Wrongfully restraining or confining or causing	 2 Years	+	Rs. 5,000/-
Causing grievous hurt, kidnapping or Abducts or rape or committing unnatural offence	 5 Years	+	Rs. 10,000/-
Causing death or abetting suicide	 10 Months	+	Rs. 50,000/-

In Case of Emergency CALL TOLL FREE NO. : 1800 - 425 - 1288

LET US MAKE JNTUK A RAGGING FREE UNIVERSITY




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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India
For Constituent Colleges and Affiliated Colleges of JNTUK



Ragging

ABSOLUTELY

NO TO RAGGING

1. Ragging is prohibited as per Act 26 of A.P. Legislative Assembly, 1997.
2. Ragging entails heavy fines and/or imprisonment.
3. Ragging invokes suspension and dismissal from the College.
4. Outsiders are prohibited from entering the College and Hostel without permission.
5. Girl students must be in their hostel rooms by 7.00 p.m.
6. All the students must carry their Identity Cards and show them when demanded
7. The Principal and the Wardens may visit the Hostels and inspect the rooms any time.

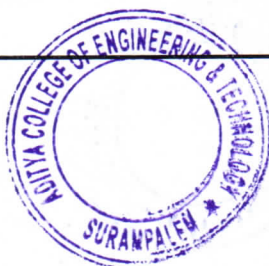


Jawaharlal Nehru Technological University Kakinada

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