

NRIA18

REGULATIONS

NRI INSTITUTE OF TECHNOLOGY

Pothavarappadu (v), Agiripalli (M) Vijayawada Rural - 521212



NRI INSTITUTE OF TECHNOLOGY(AUTONOMOUS)

(Permanently Affiliated to JNTUK, Kakinada)

(Accredited by NAAC with 'A' Grade, ISO 9001 : 2015 Certified)

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ACADEMIC REGULATIONS (NRI18) B.TECH. (REGULAR) (CHOICE BASED CREDIT SYSTEM)

Academic Program of the College are governed by rules and regulations as approved by the Academic Council (AC), the highest academic body of the College. The NRI18 academic rules and regulations are effective from the academic year 2018-19 for students admitted into four years under graduate Programmes offered by the college leading to Bachelor of Technology (B.Tech.)

1. ELIGIBILITY CRITERIA FOR ADMISSION

The eligibility criteria for admission into B. Tech Programme shall be as per the guidelines issued by the Andhra Pradesh State Council of Higher Education (APSCH) or by any other competent authority.

2. PROGRAMMES OFFERED (UNDER GRADUATE)

The following B. Tech Programmes are offered at present

1. Civil Engineering (CE)
2. Electrical and Electronics Engineering (EEE)
3. Mechanical Engineering (ME)
4. Electronics and Communication Engineering (ECE)
5. Computer Science and Engineering (CSE)
6. Information Technology (IT)

3. AWARD OF B. TECH DEGREE

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

i) 4 Year B. Tech Programme:

- a) Pursued a course of study for not less than four academic years and not more than eight academic years.
- b) Registered for prescribed **170** credits and secured **170** credits.
- c) Students, who fail to complete their Four years Course of study within Eight years or fail to acquire the **170** Credits for the award of the degree within eight academic years from the year of their admission shall forfeit their seat in B. Tech course and their admission shall stand cancelled.

ii) 3 Year B. Tech Programme under Lateral Entry Scheme (LES):

- a) Pursued a course of study for not less than three academic years and not more than six academic years.
- b) Registered for prescribed **130** credits and secured **130** credits.

- c) Students, who fail to complete their Three years Course of study within Six years or fail to acquire the **130** Credits for the award of the degree within six academic years from the year of their admission shall forfeit their seat in B. Tech course and their admission shall stand cancelled.

4. DURATION OF THE PROGRAMME

The duration of the Programme is four academic years consisting of eight semesters. However, a student is permitted to complete the course work of B. Tech Programme in the stipulated time frame of **EIGHT** years from the date of joining. Students admitted into third semester of B. Tech Programme directly, through Lateral Entry (LE) scheme, shall have to complete the course work of B. Tech Programme in the stipulated time frame of **SIX** years from the date of joining.

5. MEDIUM OF INSTRUCTION

The medium of instruction is English in all academic activities.

6. MINIMUM INSTRUCTION DAYS

Each academic year shall be divided into two semesters. The minimum instruction days for each semester shall be 90 days.

7. CATEGORIZATION OF COURSES

The curriculum of each Programme shall contain various courses indicated in the following categories to train the students for employment, higher learning & research and entrepreneurship.

- i) **Humanities and Social Sciences (HS):** These courses include professional English, Industrial Management, Managerial Economics & Financial Accountancy, Communication skills etc.
- ii) **Basic Sciences (BS):** These courses include Mathematics, Physics, Chemistry, etc.
- iii) **Engineering Sciences (ES):** These courses include Basics of Electrical / Electronics / Mechanical / Civil / Computer Engineering / Instrumentation and Engineering practices/Engineering Graphics.
- iv) **Professional Core (PC):** These courses are the core courses that provide the requisite foundation in the chosen branch of engineering.
- v) **Professional Elective (PE):** These courses are the elective courses opted by the students relevant to the chosen branch of engineering that provides the requisite foundation in a specific area of specialization.
- vi) **Open Elective (OE):** These courses are inter-disciplinary in nature offered by other departments. The department offers an elective course (OE/PE), if the number of students registered in such a course is a minimum of 30 or more.
- vii) **Add-on Courses (Optional):** Add-on courses are similar to the Programme based elective courses. These are offered to a student, one each in the VI and VII semesters. The student registering for add-on courses shall be permitted to seek exemption from as many electives that are offered in the VIII semester to focus more on the project work. A student shall undertake the project work, either within the college or premier institutions/ research laboratories/industries, when he/she registers all 3 add-on courses.
- viii) **Online / Self Learning courses (Optional):** An opportunity is given to the students to choose one online course offered by premier institutions like IITs/ Foreign institutions/ reputed universities/NPTEL/SWAYAM to enhance the learning skills or a self-study course under a guidance of the faculty advisor to enhance the self-learning capabilities.

- ix) Personality Development (PD):** These courses include Integrated Learning Practices (ILPs), Mandatory Courses (MCs) & Extra-curricular/Co-curricular activities and help the students into a well-trained professionals and good human beings with a high employability potential, good communication skills, soft skills, good engineering practices, personality transformation, professional presentation skills and networking skills.
- a) Integrated Learning Practices:** These courses include Mini project, Seminar, Internship, and Project work. These courses are intended to provide students with specific learning outcomes in a branch of engineering, apart from broad skills are necessary for enhancing professional skills among the future engineers.
 - b) Mandatory Non-credit Courses:** The Environmental Studies, Professional Ethics & Human Values, Employability Enhancement Skills, Problem-assisted learning and Problem-based learning are non-credit courses and relevant for value education and for enhancing employability skills.
 - c) Extra and Co- Curricular Activities:** In addition to the above courses to enhance the overall personality & character of students and make them aware of societal needs, the extra-curricular/co-curricular activities are included, which do not carry any credits. These activities include National Service Scheme (NSS), National Cadet Corps (NCC), Yoga & Meditation, Sports & Games and Professional club activities.
 - d) Industrial Training:** The students shall undergo Internship/ Industrial training / In-house training to expose them to the practical environment.

8. SEMESTER –WISE CREDITS

The entire course of study is for four academic years (three academic years in case of LES), all the years are on semester pattern. The distribution of credits in each semester is as follows.

Semester	Credits	
	Regular	Lateral Entry
I	18/19/20/21#	--
II	19/20/21/22#	--
III	22	22
IV	22	22
V	22/25	22/25
VI	22/25*	22/25*
VII	22/25*	22/25*
VIII	12/16/20	12/16/20
Total	170	130

*With add-on course

credits different for different branches in a particular semester

Note:

With 2- add-on courses registered, credits in VIII semester = 12

With 1- add-on course registered, credits in VIII semester = 16

Without add-on courses registered, credits in VIII semester = 20

- A faculty advisor or counsellor advise the students about the curriculum, choice/option for requisites and interest.

9. ASSESSMENT AND EVALUATION

The performance of a student in each course shall be evaluated based on Continuous Internal Assessment (CIA) and Semester End Assessment (EA) or only Continuous Internal Assessment as indicated in the following table.

S. No	Category of Course	Marks		
		CIA	SEA	
1	Theory Course	40	60	
2	Laboratory Courses	40	60	
3	Mandatory courses	Environmental Studies, Professional ethics and human values Employability enhancement skills, Problem assisted learning and Problem based learning	--	
4	Engineering Graphics	100	--	
5	Mini Project	100	--	
6	Seminar	100	--	
7	Internship	100		
8	Project work	80	120	

9.1 THEORY COURSES

9.1.1 Continuous Internal Assessment (CIA):

The continuous Internal Assessment of a theory course consists of four components as indicated in the following table.

S. No	Component	Marks
1	Subjective examinations	15
2	Online Objective examinations	15
3	Assignments	5
4	Attendance	5
Total		40

i) Subjective Examinations (15 marks):

Each Subjective examination is conducted for 30 marks with 1½ hours duration. The Subjective examinations shall be conducted with syllabi from units I & II for the first and units III & IV for the second. Each Subjective examination consists of four questions two from each unit, each for 10 marks. Three questions out of four need to be answered. Sum of 75% marks of better scored Subjective examination and 25% of less scored Subjective examination are scale down for 15 marks.

ii) Online Objective Examinations (15 marks):

Two online Objective examinations of 20 minutes each shall be conducted with syllabi from units I & II for the first and units III & IV for the second. The each Objective examination shall have 15 multiple choice questions. In final assessment, 75% weightage

for the better of the two online examinations and 25% for the other shall be considered for awarding marks.

iii) Assignments (5 marks):

Assignments shall be evaluated by the concerned faculty based on one assignment in each unit. The average of four assignment marks shall be considered for awarding marks.

iv) Attendance (5 marks):

A student shall be awarded maximum 5 marks in each course based on the percentage of attendance as given below

% of Attendance	Marks
≥ 95	5
90 to < 95	4
85 to < 90	3
80 to < 85	2
75 to < 80	1

- For subjects like Communicative English the pattern of Subjective examination is given along with the syllabus of respective subject.
- For the subjects such as Engineering Graphics, Engineering Drawing, Machine Drawing, Design & Drawing of R.C., Structures, Steel Structures, Irrigation Structures, Estimation Cost and Valuation, Building Planning and Drawing etc., the distribution of 30 marks for internal assessment shall be 15 marks for day-to-day work, 15 marks based on two Subjective examinations, **10 marks for assignments**. Each Subjective examination is conducted for 40 marks with two hours duration. Sum of the 75% marks of better scored Subjective examination and 25% marks of less scored Subjective examination are scaled down for 15 marks.

9.1.2 Semester End Assessment (SEA)

- i) Semester end Assessment will have questions under Part-A and Part-B with three hours duration. **Part-A** is compulsory and consists of four 2 marks questions or eight objective questions each of one mark. Part-B consists of four questions one from each unit with “either” / “or” option, carrying 13 marks.
- ii) For subjects like Professional English, Engineering Drawing / Engineering Graphics, Machine Drawing, Building Planning & Drawing, etc, the pattern of semester end Assessment is given along with the syllabus of respective subject.

9.2 LABORATORY COURSES

9.2.1 Continuous Internal Assessment (CIA)

The continuous internal assessment for laboratory courses (including Computer aided engineering drawing, computer aided engineering graphics, Computer aided machine drawing etc.) is based on the following parameters:

Parameter	Marks
Day-to-day work	10
Record and observation	10
Internal test	20
Total	40

9.2.2 Semester End Assessment (SEA)

- i) For the Laboratory Courses with CIA and SEA as well as Laboratory courses with only CIA, the performance of the student in laboratory courses shall be evaluated jointly by internal and external examiners for 3 hours duration as per the parameters indicated below:

Parameter	Marks
Procedure	20
Experiment / Program	20
Result	10
Viva voce	10
Total	60

- ii) For the courses like design/ drawing (Computer aided engineering drawing, computer aided engineering graphics, Computer aided machine drawing / Building drawing etc.) the SEA evaluation is based on the following parameters.

Parameter	Marks
Procedure	20
Drawing / Model preparation	20
Result	10
Viva voce	10
Total	60

9.3 PERSONALITY DEVELOPMENT COURSES

9.3.1 Integrated Learning Practices

i) Mini Project

A student is required to undergo a mini project of his/her choice by applying theoretical concepts to develop a practical component /element/system that includes design/ testing/ analysis. The performance of a student in the mini project shall be assessed in reviews by a Departmental Review committee constituted by the HOD as per the following parameters:

S. No	Component	Marks
1	Abstract submission	10
2	Quality of work	20
3	Review – 1	25
4	Mini Project Report	20
5	Review – 2	25
Total		100

The performance of a student in mini project shall be evaluated based on two reviews, each carrying 25 marks. However, a student who fails to secure minimum 40% marks will be permitted to reappear in the subsequent semester(s). There shall be no semester end Assessment.

ii) Seminar

A student shall deliver a seminar on any emerging topic of his/her choice from the core technical domain. The student shall submit a duly-certified seminar report. A

Departmental Review Committee constituted by the HOD will finalize the CIA marks based on the following parameters:

Parameter	Marks
Abstract submission	10
Quality of work	20
Review - 1	25
Seminar Report	20
Review - 2	25
Total	100

A student who fails to secure minimum 40% marks will be permitted to reappear in the subsequent semester(s). There shall be no semester end Assessment.

iii) Internship

Internship must involve practical work related to systems engineering, industry practices etc. The students shall undergo internship for a period of minimum 4 weeks continuously at the end of IV or VI semester and shall be evaluated in VII semester. The internship can be carried out at premier institutions/ research laboratories/industries.

A student shall submit a report on the training undergone, along with a certificate from the organization. A Departmental review Committee constituted by the HOD shall finalize the CIA marks based on the following parameters:

Parameter	Marks
Internship certificate and Report	20
Review	30
Total	50

A student, who fails to secure minimum 40% marks or abstains, will be permitted to reappear in the subsequent semester(s). There shall be no semester end Assessment.

iv) Project Work

A student is required to undertake a project work by using the knowledge acquired by him/her during study. The student is expected to design and build a complete system or subsystem on an area of interest. The project work consists of two parts namely, project Literature survey and project implementation A project work shall be carried out by a batch of students not exceeding 4 members, under a faculty supervisor.

➤ **Continuous Internal Assessment (CIA)**

The CIA for project work shall be based on project survey and project implementation and is evaluated by a departmental review committee consisting of two senior faculty and a project supervisor constituted by the HOD. The performance of each student is evaluated as per the following parameters

Parameter	Marks
Literature Survey	10
Problem statement Abstract submission	10
Analysis and Design frame work document	10
Review - 1	15
Execution and result	20
Review - 2	15
Total	80

➤ **Semester end Assessment (SEA)**

A batch of students shall submit a duly-certified project report to the department on a specified time. They shall make a presentation on the project work before a three-member committee consisting of external examiner, internal examiner (HOD) and a project supervisor. The performance of each student is evaluated as per the following parameters

Parameter	Marks
Explanation	20
Experiment/ Program Execution	50
Result	25
Viva Voce	25
Total	120

A student who fails to secure minimum 40% marks or abstains is permitted to reappear in the advanced supplementary examinations or when offered next.

9.3.2 MANDATORY COURSES

Courses with CIA & SEA: The question paper pattern and evaluation process are similar to that of any other theory course. A student shall secure a minimum 40% marks exclusively at the SEA and a minimum 40% of marks in both CIA and SEA to award grade.

Courses with only CIA: There shall be an internal test carrying 100 marks for 3 hours duration at the end of semester. A student shall secure minimum 40% marks to award grade.

Project Based Learning: A student is required to undertake a comprehensive study on an assigned problem area in his/ her technical domain and submit a report for assessment.

The Project based learning courses are learning activities based on theoretical concepts which are verified through experimentation / product (algorithm / code) development. The performance of the student is evaluated by a Departmental committee constituted by the HOD as per the following parameters

Parameter	Marks
Problem definition	10
Report	20
Review	20
Total	50

The performance of a student in Project based learning shall be evaluated based on one review, each carrying marks. A student shall secure minimum 40% marks to obtain a grade.

9.3.3 EXTRA-CURRICULAR/CO-CURRICULAR ACTIVITIES

- The participation of a student is compulsory in any one of the extra-curricular/co-curricular activities (non-credit) such as NSS, NCC, Yoga & Meditation, Sports & Games, Professional club activities during the semesters I to VII. The performance of a student in the extra-curricular/co-curricular activities is evaluated during VII semester by a three-member committee constituted by HOD as per the following parameters:
 - A student shall secure a satisfactory grade (SA) which will be indicated in the VII semester grade card, if he/she obtains the following certificates.

- i) NSS/ NCC/ Yoga & Meditation certificate (20 contact hours) - 1 No.
 - ii) Sports & games certificate (20 contact hours) -1 No.
 - iii) Co-curricular activity certificates - 2 No.
- For physically disabled students, the satisfactory grade (SA) will be awarded, if he/she obtains 4 certificates in co-curricular activities/ Extra Curricular activities such as essay writing, debate competitions, technical & general quizzes, symposia etc.

However, a student who secures unsatisfactory grade (US) shall reappear in the subsequent semester(s).

9.3.4 INDUSTRIAL TRAINING/IN-HOUSE TRAINING

The students shall undergo Industrial Training/ In-House Training (non-credit) for a period of 2 weeks during the III year. It shall be evaluated in VII semester by a Departmental committee constituted by the HOD as per the following parameters:

Parameter	Marks
Training Certificate and Report Submission	20
Review	30
Total	50

9.4 ONLINE COURSES LIKE MOOCS/SWAYAM/NPTEL/ SELF LEARNING COURSES

A student shall be permitted to register for only one online / self-learning course either in VII or VIII semesters as approved by the Departmental Academic Committee (DAC) and BOS.

- A student is permitted to register for an online course offered by JNTUs/IITs/NITs and other Indian or foreign universities of repute. The DAC shall appoint a faculty member as coordinator for such courses. The evaluation done by the external agencies shall be converted into suitable grades as per the evaluation methodology approved by a committee constituted by the head of the institution.
- A student is permitted to register for a self-study course, if he/she has a CGPA of 7.5 and above with no backlog of subjects. A self-study course shall be department concerned or inter-disciplinary. No formal lectures will be delivered for a self-learning course. The syllabus of the course shall be approved by BOS. One faculty member for each course will be nominated by DAC to monitor the progress made by the student. The question paper pattern and evaluation process are similar to that of any other theory course.

9.5 ADD-ON COURSES

The student once registers for a specific add-on course, he/she is required to acquire the minimum number of credits in that course only, and no change in courses will be allowed under any circumstances.

The question paper pattern and evaluation process are similar to that of any other theory course. The grade secured in the add-on course will be indicated along with other courses of that semester in the grade card.

10. ATTENDANCE REQUIREMENTS

- i) A student shall be eligible to appear for End Semester Examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.
- ii) Condoning of shortage of attendance in aggregate upto 10% (65% and above and below 75%) in each semester will be considered for genuine reasons such as medical grounds and participation in co-curricular and extra-curricular activities and shall be granted only after approval by a committee duly appointed by the college. The student should submit application for medical leave along with medical certificate from a registered medical practitioner within three days from reporting to the class work after the expiry of the Medical Leave. In case of participation in co-curricular and extra-curricular activities, either in the college or other colleges, students must take prior written permission from HOD concerned and should also submit the certificate of participation from the organizer of the event within three days after the completion of the event. Only such cases will be considered for condoning attendance shortage.
- iii) A student shall be eligible to claim for condonation of attendance shortage for a maximum of two times during the four-year (eight semesters) course work of B. Tech / three year (six semesters) course work of B. Tech, Lateral Entry. However, additional one-time condonation exclusively for IV Year shall be considered on genuine valid reasons.
- iv) A student will not be promoted to the next semester unless he satisfies the attendance requirement of the current semester. He may seek re-admission for that semester when offered next.
- v) Shortage of Attendance below 65% in aggregate shall in *NO* case be condoned.
- vi) Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examination of that class and their registration shall stand cancelled.
- vii) A fee stipulated by the college shall be payable towards condonation of attendance shortage.

11. MINIMUM ACADEMIC REQUIREMENTS

i) Pass requirement:

- a) A candidate shall be declared to have passed in individual theory / integrated theory and laboratory / Project based theory / drawing course if he secures a minimum of 40% aggregate marks (internal & semester end Assessment marks put together), subject to securing a minimum of 35% marks in the semester end Assessment.
- b) A candidate shall be declared to have passed in individual laboratory/ project / mini project / field work / industrial internship / practical training course if he secures a minimum of 50% aggregate marks (internal & semester end Assessment marks put together), subject to securing a minimum of 40% marks in the semester end Assessment.
- c) On passing a course of a Programme, the student shall earn the credits assigned to that course

ii) PROMOTION RULE

- i) A student shall be eligible for promotion to next Semester of B. Tech Programme, if he/she satisfies the conditions.

ii) The following academic requirements must be satisfied in addition to the attendance requirements mentioned in Regulation 7 for promotion into III Year I semester and IV year I semester.

a) 4 Year B. Tech Programme:

i) A student shall be promoted from II year to III year only if he/she acquires the academic requirement of a minimum of 50% credits up to second year second semester.

ii) A student shall be promoted from III year to IV year only if he acquires the academic requirement of a minimum of 50% of credits up to third year second semester.

b) 3 Year B. Tech Programme under Lateral Entry Scheme:

A student shall be promoted from III to IV year only if he acquires the academic requirement of a minimum of 50% credits up to third year second semester.

12. PROCEDURES FOR SEMESTER END EXAMINATIONS

i) Makeup Examinations

- a) Makeup examinations shall be conducted within 30 days after completion of regular examinations every semester.
- b) A student can register up to a maximum of two courses (theory or laboratory) for makeup examinations in the courses in which he failed
- c) The letter grades secured in makeup examinations in those subjects shall be considered and a single marks memo is issued by including the performance in makeup examinations. But, a Star (*) mark is printed against those courses in which a student has appeared for makeup examinations.

ii) Supplementary Examinations

- a) Supplementary examinations will be conducted twice in a year at the end of odd and even semesters.
- b) Semester end supplementary examinations shall be conducted till next regulation comes into force for that semester, after the conduct of the last set of regular examinations under the present regulation.
- c) Thereafter, supplementary examinations will be conducted in the equivalent courses as decided by the Board of Studies concerned.
- d) There is no makeup examination in case of supplementary examinations.

iii) Advanced Supplementary Examinations

Student(s), who failed in theory/ laboratory courses of 4/4 B.Tech. in Eighth semester, can appear for advanced supplementary examinations to be conducted within one month after declaration of the revaluation results of 4/4 B.Tech. eighth semester. However, those students who fail in these advanced supplementary examinations of 4/4 B.Tech. shall appear for subsequent examinations along with regular candidates, in the examinations conducted at the end of the respective academic semester.

iv) Revaluation

- a) Students can submit the applications for revaluation, along with the prescribed fee receipt for revaluation of his answer script(s) of theory course(s) as per the notification issued by the Controller of Examinations.

- b) The Controller of Examinations shall arrange for reevaluation of such answer script(s).
- c) An examiner, other than the first examiner, shall reevaluate the answer script(s).
- d) If the variation in marks of two evaluations is less than 15% of total marks, the best mark of two evaluations shall be taken into consideration.
- e) If the variation in marks of two evaluations is more than 15% of total marks, there shall be third evaluation by an examiner other than the first two examiners. The best marks of two evaluations (which are nearer) shall be taken into consideration.

13. AWARD OF LETTER GRADES

A letter grade and grade points will be awarded to a student in each course based on his performance, as per the grading system given below

Theory / Drawing / Elective / Self Study Course (%)	Laboratory / Industrial / Practical Training / Mini Project / Project Work (%)	Grade Points	Letter Grade
≥ 90	≥ 90	10	O (Outstanding)
≥ 80 & < 90	≥ 80 & < 90	9	A+ (Excellent)
≥ 70 & < 80	≥ 70 & < 80	8	A (Very Good)
≥ 60 & < 70	≥ 60 & < 70	7	B (Good)
≥ 50 & < 60	≥ 50 & < 60	6	C (Average)
≥ 40 & < 50	–	5	D (Pass)
< 40	< 50	0	F (Fail)
	≥ 50	SA	Satisfactory
	< 50	US	Un Satisfactory
		AB	Absent

14. COMPUTATION OF SGPA & CGPA

a) Semester Grade Point Average (SGPA)* for semester

The performance of each student at the end of each semester is indicated in terms of SGPA.

The SGPA is calculated as given below

$$SGPA = \frac{\sum(CR \times GP)}{\sum CR} \text{ for each semester.}$$

where CR = Credits of a course
GP = Grade Points awarded for a course

SGPA is calculated for a candidate who passed all the courses in that semester

b) Cumulative Grade Point Average (CGPA) for Entire Programme:

The CGPA is calculated as given below

$$CGPA = \frac{\sum(CR \times GP)}{\sum CR} \text{ for Entire Programme.}$$

where CR = Credits of a course
GP = Grade points awarded for a course

15. AWARD OF CLASS

After satisfying the requirements prescribed for the completion of the Programme, the student shall be eligible for the award of B. Tech Degree and shall be placed in one of the following grades

CGPA	Class
≥ 7.5	First Class with Distinction
≥ 6.5 & < 7.5	First Class
≥ 5.5 & < 6.5	Second Class
≥ 5 & < 5.5	Pass Class
< 5	Fail

16. ACADEMIC FLEXIBILITY

- i)** A student can opt for 1 or 2 add-on courses offered in VI and VII semesters.
- ii)** The student registering for add-on courses shall be permitted to seek exemption from as many electives that are offered in the VIII semester.
- iii)** A student shall be permitted to take up only project work either within the college or at any premier institutions/ research laboratories/ industries, when he/she registers all 3 add-on courses.
- iv)** A student is permitted to register for one online course / self-study course in lieu of electives offered in the VII/VIII semesters.
- v)** Scope is provided to the students for choosing the programme electives of their choice and to enhance their knowledge subsequently.
- vi)** Scope is provided to the students for choosing the open electives of their choice and to enhance their knowledge in inter-disciplinary areas.
- vii)** Scope is provided for the students to opt for on-line/self-study course of their choice to enhance their self-learning capabilities.
- viii)** Gap year facility is provided to merit students to undergo training programs at premier institutions/ research laboratories/industries.

17. AWARD OF RANK

The rank shall be awarded based on the following:

- i)** Ranks shall be awarded in each branch of study for the top 10% percent of the students appearing for the regular end semester examinations.
- ii)** The rank will be awarded only to those students who complete their degree within four academic years as regular student.
- iii)** For awarding rank in each branch, the CGPA calculated based on the grades secured at the first attempt only shall be considered.
- iv)** Award of prizes, scholarships, or any other honors shall be based on the rank secured by a candidate, consistent with the desire of the donor, wherever applicable.

18. RE-ADMISSION CRITERIA

- i)** A candidate, who is detained in a semester due to lack of attendance must obtain written permission from the Principal for readmission into the same semester after duly fulfilling the required norms stipulated by the college and by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs.1,000/-.
- ii)** A candidate, who is not promoted either to III year or IV year due to lack of required credits can seek admission into III / IV year in subsequent years after obtaining the

required credits as stipulated in regulation 13 by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-.

19. BREAK IN STUDY

Student, who discontinues the studies for what-so-ever reason, can get readmission into appropriate semester of B. Tech Programme only with the prior permission of the Principal of the College, provided such candidate shall follow the transitory regulations applicable to the batch he joins. An administrative fee of Rs.2,000/- per each year of break in study in addition to the prescribed tuition and special fees should be paid by the candidate to condone his break in study.

20. TRANSITORY REGULATIONS

A candidate, who is detained or discontinued in a semester, on readmission shall be required to do all the courses in the curriculum prescribed for the batch of students in which the student joins subsequently. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s) he was originally admitted into and substitute subjects are offered in place of them as decided by the Board of Studies. However, the decision of the Board of Studies will be final.

a) Transfer Candidates (From Non-Autonomous college affiliated to JNTUK)

A student who is following JNTUK curriculum, transferred from other college to this college in second year first semester or subsequent semesters shall join with the autonomous batch in the appropriate semester. Such candidates shall be required to pass in all the courses in the Programme prescribed by the Board of Studies concerned for that batch of students from that semester onwards to be eligible for the award of degree. However, exemption will be given in the courses of the semester(s) of the batch which he had passed earlier, and substitute subjects are offered in their place as decided by the Board of Studies. The student must clear all his backlog subjects up to previous semester by appearing for the supplementary examinations conducted by JNTUK for the award of degree. The total number of credits to be secured for the award of the degree will be the sum of the credits up to previous semester under JNTUK regulations and the credits prescribed for the semester in which a candidate joined after transfer and subsequent semesters under the autonomous stream. The class will be awarded based on the academic performance of a student in the autonomous pattern.

b) Transfer Candidates (From an Autonomous college affiliated to JNTUK)

A student who has secured the required credits up to previous semesters as per the regulations of other autonomous institutions shall also be permitted to be transferred to this college. A student who is transferred from the other autonomous colleges to this college in second year first semester or subsequent semesters shall join with the autonomous batch in the appropriate semester. Such candidates shall be required to pass in all the courses in the Programme prescribed by the Board of Studies concerned for that batch of students from that semester onwards to be eligible for the award of degree. However, exemption will be given in the courses of the semester(s) of the batch which he had passed earlier, and substitute subjects are offered in their place as decided by the

Board of Studies. The total number of credits to be secured for the award of the degree will be the sum of the credits up to previous semester as per the regulations of the college from which he is transferred, and the credits prescribed for the semester in which a candidate joined after transfer and subsequent semesters under the autonomous stream. The class will be awarded based on the academic performance of a student in the autonomous pattern.

21. WITHHOLDING OF RESULTS

If the student has not paid the dues, if any, to the College or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will also be withheld in such cases.

22. MALPRACTICES:

- i) The Principal shall refer the cases of malpractices in internal assessment tests and semester end Assessments to a malpractice enquiry committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.
- ii) Any action by the candidate trying to get undue advantage in the performance or trying to help another or derive the same through unfair means is punishable according to the provisions contained hereunder.

23. OTHER MATTERS

- i) Physically challenged candidates who have availed additional examination time and a scribe during their Intermediate/EAMCET examinations will be given similar concessions on production of relevant proof/documents. Students who are suffering from contagious diseases are not allowed to appear either for internal or semester end Assessments.
- ii) The students who participated in coaching / tournaments held at State / National / International levels through University / Indian Olympic Association during semester end external examination period will be promoted to subsequent semesters as per the guidelines of University Grants Commission Letter No. F.1-5/88 (SPE/PES), dated 18-08-1994.
- iii) The Principal shall deal in an appropriate manner with any academic problem which is not covered under these rules and regulations, in consultation with the Heads of the Departments and subsequently such actions shall be placed before the Academic Council for ratification. Any emergency modification of regulation approved in the meetings of the Heads of the Departments shall be reported to the Academic Council for ratification.

24. GENERAL

- i) The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.
- ii) The academic regulations should be read as a whole for the purpose of any interpretation.
- iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.
- iv) Wherever the word he, him or his occurs, it will also include she, her and hers.

ANNEXURE-I

MALPRACTICE RULES

DISCIPLINARY ACTION FOR MALPRACTICE/ IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices / Improper conduct	Punishment
1(a)	If a student possesses or tries to access 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)	If as student gives assistance or guidance or receives any such help from any other candidate orally or through gestures, communicates through cell phones with any candidate or persons in or outside the exam hall.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject. In case of an outsider, he will be handed over to the police and a case will be registered against him.
2.	If a student is found to have 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 he/she is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject as well as all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear in the remaining examinations of that Semester. The Hall Ticket of the candidate will 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 from the college and forfeits his seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the examination (including practical's and project work) already appeared and shall not be allowed to appear in examinations of the remaining subjects of that semester. 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.	If a student smuggles inside the exam hall an Answer book or additional sheet or takes out or arranges to send out the question paper, 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. The candidate is also debarred from class work for two consecutive semesters 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.	If a student uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting/threatening him/her to award pass marks	Cancellation of the performance in that subject
6.	If a student refuses to obey the orders of the Chief Superintendent / COE / 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 duty in or outside the examination hall causes injury to his person or to any other persons 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 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.	Such a student(s) shall be expelled from the examination hall along with 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. The candidate(s) will be debarred from the college and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	If a student leaves the exam hall taking away answer script or intentionally tears/mutilates/deforms 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. The candidate is also debarred from class work and University examinations for two consecutive semesters. The continuation of the course by the candidate is subject to the academic regulations.
8.	If a student is in possession of 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. 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 he 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. 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.	If a student comes to the examination hall in a drunken condition	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 that semester.
11.	If copying is 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 examinations.
12.	Any other malpractice not covered in the above clauses i.e. from 1 to 11 shall be reported to the University or further action/ suitable punishment.	






ANNEXURE-II



Prohibition of ragging in educational institutions Act 26 of 1997

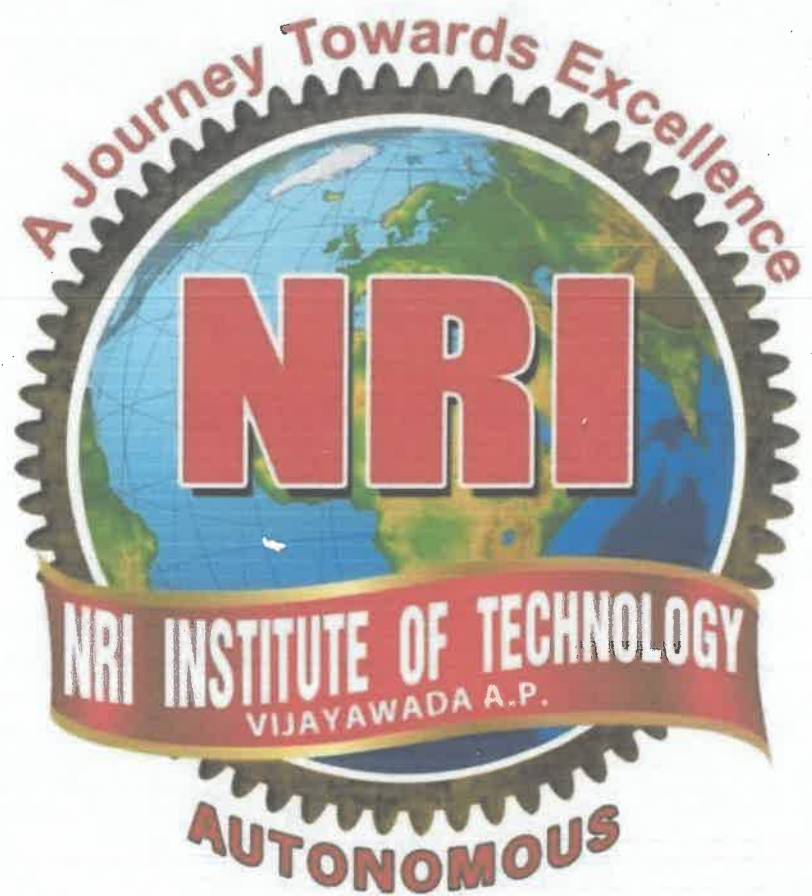
Salient Features

- 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 hurt	 2 Years	+	Rs. 5,000/-
Causing grievous hurt, kidnapping or Abduction or rape or committing unnatural offence	 5 Years	+	Rs. 10,000/-
Causing death or abetting suicide	 10 Years	+	Rs. 50,000/-

ABSOLUTE 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. All the students must carry their Identity Cards and show them when demanded.
6. The Principal and the Wardens may visit Hostels and inspect the rooms any time.



NRIA18

REGULATIONS

NRI INSTITUTE OF TECHNOLOGY

Pothavarappadu (v), Agiripalli (M) Vijayawada Rural - 521212



NRI INSTITUTE OF TECHNOLOGY(AUTONOMOUS)
(Permanently Affiliated to JNTUK, Kakinada)
(Accredited by NAAC with 'A' Grade, ISO 9001 : 2015 Certified)
 POTHAVARAPPADU-521 212 VIJAYAWADA, Krishna Dist., AP
 Ph : 0866-2469666 Website : nrigroupofcolleges.com

ACADEMIC REGULATIONS NRIA18 FOR M. Tech (REGULAR)

Applicable for the students of M. Tech (Regular) Course from the Academic Year 2018-19 onwards. The M. Tech Degree shall be conferred on candidates who are admitted to the program and who fulfill all the requirements for the award of the Degree.

1.0 ELIGIBILITY FOR ADMISSIONS

Admission to the above program shall be made subject to eligibility, qualification and specialization as prescribed by the University from time to time.

Admissions shall be made on the basis of merit/rank obtained by the candidates at the qualifying Entrance Test conducted by the University or on the basis of any other order of merit as approved by the University, subject to reservations as laid down by the Govt. from time to time.

2.0 AWARD OF M. Tech DEGREE

- 2.1 A student shall be declared eligible for the award of the M. Tech Degree, if he pursues a course of study in not less than two and not more than four academic years.
- 2.2 The student shall register for all 80 credits and secure all the 80 credits.
- 2.3 The minimum instruction days in each semester are 90.

3.0 A. COURSES OF STUDY

The following specializations are offered at present for the M. Tech course of study.

1. M.Tech- Structural Engineering
2. M.Tech- Power Electronics & Drives
3. M.Tech- Thermal Engineering
4. M.Tech- Digital Electronics and Communication Systems
5. M.Tech- Computer Science & Engineering

and any other course as approved by AICTE/ University from time to time.

4.0 ATTENDANCE

- 4.1 A student shall be eligible to write End semester examinations if he acquires minimum of 75% of attendance in aggregate of all the subjects.
- 4.2 Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester shall be granted by the College Academic Committee.
- 4.3 Shortage of Attendance below 65% in aggregate shall not be condoned.
- 4.4 Students whose shortage of attendance is not condoned in any semester are not eligible to write their end semester examination of that class.
- 4.5 A prescribed fee shall be payable towards condonation of shortage of attendance.
- 4.6 A student shall not be promoted to the next semester unless he satisfies the attendance requirement of the present semester, as applicable. They may seek readmission into that semester when offered next. If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.

5.0 EVALUATION

The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks for theory and 100 marks for practicals, on the basis of Internal Evaluation and End Semester Examination.




- 5.1 For the theory subjects 60 marks shall be awarded based on the performance in the End Semester Examination and 40 marks shall be awarded based on the Internal Evaluation. The internal evaluation shall be made based on the average of the marks secured in the two Mid Term-Examinations conducted-one in the middle of the Semester and the other immediately after the completion of instruction. Each midterm examination shall be conducted for a total duration of 120 minutes with 4 questions (without choice) each question for 10 marks. End semester examination is conducted for 60 marks for 5 questions to be answered out of 8 questions.
- 5.2 For practical subjects, 60 marks shall be awarded based on the performance in the End Semester Examinations and 40 marks shall be awarded based on the day-to-day performance as Internal Marks.
- 5.3 There shall be two seminar presentations during III semester and IV semester. For seminar, a student under the supervision of a faculty member, shall collect the literature on a topic and critically review the literature and submit it to the department in a report form and shall make an oral presentation

before the Project Review Committee consisting of Head of the Department, Supervisor and two other senior faculty members of the department. For each Seminar there will be only internal evaluation of 50 marks. A candidate has to secure a minimum of 50% of marks to be declared successful.

- 5.4 A candidate shall be deemed to have secured the minimum academic requirement in a subject if he secures a minimum of 40% of marks in the End semester Examination and a minimum aggregate of 50% of the total marks in the End Semester Examination and Internal Evaluation taken together.
- 5.5 In case the candidate does not secure the minimum academic requirement in any subject (as specified in 5.4) he has to reappear for the End semester Examination in that subject. A candidate shall be given one chance to re-register for each subject provided the internal marks secured by a candidate are less than 50% and has failed in the end examination. In such a case, the candidate must re-register for the subject(s) and secure the required minimum attendance. The candidate's attendance in the re-registered subject(s) shall be calculated separately to decide upon his eligibility for writing the end examination in those subject(s). In the event of the student taking another chance, his internal marks and end examination marks obtained in the previous attempt stand cancelled. For re-registration the candidates have to apply to the Principal through the college by paying the requisite fees and get approval from the Principal before the start of the semester in which re-registration is required.
- 5.6 In case the candidate secures less than the required attendance in any re registered subject (s), he shall not be permitted to write the End Examination in that subject. He shall again re-register the subject when next offered.
- 5.7 Laboratory examination for M. Tech. courses must be conducted with two Examiners, one of them being the Laboratory Class Teacher or teacher of the respective college and the second examiner shall be appointed by the university from the panel of examiners submitted by the respective college.

6.0 EVALUATION OF PROJECT/DISSERTATION WORK

Every candidate shall be required to submit a thesis or dissertation on a topic approved by the Project Review Committee.

- 6.1 A Project Review Committee (PRC) shall be constituted with Head of the Department and two other senior faculty members.
- 6.2 Registration of Project Work: A candidate is permitted to register for the project work after satisfying the attendance requirement of all the subjects, both theory and practical. 
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- 6.3 After satisfying 6.2, a candidate has to submit, in consultation with his project supervisor, the title, objective and plan of action of his project work for approval. The student can initiate the Project work, only after obtaining the approval from the Project Review Committee (PRC).
- 6.4 If a candidate wishes to change his supervisor or topic of the project, he can do so with the approval of the Project Review Committee (PRC). However, the Project Review Committee (PRC) shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of project proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.
- 6.5 A candidate shall submit his status report in two stages at least with a gap of 3 months between them.
- 6.6 The work on the project shall be initiated at the beginning of the II year and the duration of the project is two semesters. A candidate is permitted to submit Project Thesis only after successful completion of theory and practical course with the approval of PRC not earlier than 40 weeks from the date of registration of the project work. The candidate has to pass all the theory and practical subjects before submission of the Thesis.
- 6.7 Three copies of the Project Thesis certified by the supervisor shall be submitted to the College/School/Institute.
- 6.8 The thesis shall be adjudicated by one examiner selected by the University. For this, the Principal of the College shall submit a panel of 5 examiners, eminent in that field, with the help of the guide concerned and head of the department.
- 6.9 If the report of the examiner is not favourable, the candidate shall revise and resubmit the Thesis, in the time frame as decided by the PRC. If the report of the examiner is unfavorable again, the thesis shall be summarily rejected. The candidate has to re-register for the project and complete the project within the stipulated time after taking the approval from the University.
- 6.10 If the report of the examiner is favourable, Viva-Voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the examiner who adjudicated the Thesis. The Board shall jointly report the candidate's work as one of the following:
- A. Excellent
 - B. Good
 - C. Satisfactory
 - D. Unsatisfactory

The Head of the Department shall coordinate and make arrangements for the conduct of Viva-Voce examination.

6.11 If the report of the Viva-Voce is unsatisfactory, the candidate shall retake the Viva-Voce examination only after three months. If he fails to get a satisfactory report at the second Viva-Voce examination, the candidate has to re-register for the project and complete the project within the stipulated time after taking the approval from the University.

7.0 AWARD OF LETTER GRADES

A letter grade and grade points will be awarded to a student in each course based on performance, as per the grading system given below

Theory/ Drawing/Elective/ Self Study Course (%)	Laboratory / Seminar / Internship/ Mini Project / Project Work (%)	Grade Points	Letter Grade
≥ 90	≥ 90	10	O(Outstanding)
≥ 80 & < 90	≥ 80 & < 90	9	A+ (Excellent)
≥ 70 & < 80	≥ 70 & < 80	8	A (Very Good)
≥ 60 & < 70	≥ 60 & < 70	7	B (Good)
≥ 50 & < 60	≥ 50 & < 60	6	C (Average)
< 50	< 50	0	F (Fail)
Absent	Absent	AB	ABSENT

8.0 COMPUTATION OF SGPA & CGPA

a) Semester Grade Point Average (SGPA)* for semester

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

$$\text{SGPA} = \frac{\Sigma(\text{CR} \times \text{GP})}{\Sigma \text{CR}} \text{ for each semester.}$$

where CR = Credits of a course

GP = Grade Points awarded for a course

SGPA is calculated for a candidate who passed all the courses in that semester

b) Cumulative Grade Point Average (CGPA) for Entire Programme:

The CGPA is calculated as given below

$$\text{CGPA} = \frac{\Sigma(\text{CR} \times \text{GP})}{\Sigma \text{CR}} \text{ for Entire Programme.}$$

where CR = Credits of a course

GP = Grade points awarded for a course

c) Conversion Formula for CGPA to Marks in Percentage

The approximate equivalence of marks to a given CGPA is calculated by using the formula:

$$\text{Percentage Equivalence of CGPA} = [\text{CGPA} - 0.5] \times 10$$

9.0 AWARD OF DEGREE AND CLASS

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

Class Awarded	% of marks to be secured
First Class with Distinction	70% and above (Without any Supplementary Appearance)
First Class	Below 70% but not less than 60%
	70% and above (Without any Supplementary Appearance)
Second Class	Below 60% but not less than 50%

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

10.0 WITHHOLDING OF RESULTS

If the student has not paid the dues, if any, to the university or 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.

11.0 TRANSITORY REGULATIONS

9.1 Discontinued or detained candidates are eligible for re-admission into same or equivalent subjects at a time as and when offered.

9.2 The candidate who fails in any subject will be given two chances to pass the same subject; otherwise, he has to identify an equivalent subject as per the academic regulations.

12. GENERAL

9.1 The academic regulations should be read as a whole for purpose of any interpretation.

9.2 In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.

9.3 The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.

9.4 Wherever the word he, him or his occur, it will also include she her and hers.

msf

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NBA

ANNEXURE-I
MALPRACTICE RULES




DISCIPLINARY ACTION FOR MALPRACTICE/ IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices / Improper conduct	Punishment
1(a)	If a student possesses or tries to access any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with correlated 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)	If as student gives assistance or guidance or receives any such help from any other candidate orally or through gestures, communicates through cell phones with any candidate or persons in or outside the exam hall.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject. In case of an outsider, he will be handed over to the police and a case will be registered against him.
2.	If a student is found to have 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 he/she is appearing.	Expulsion from the examination hall and cancellation of the performance in that subjects well as all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear in the remaining examinations of that Semester. The Hall Ticket of the candidate will be cancelled.
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 from the

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		<p>college and forfeits his seat. The performance of the original candidate Who has been impersonated, shall be cancelled in all the subjects of the examination (including practical's and project work) already appeared and shall not be allowed to appear in examinations of the remaining subjects of that semester. The candidate is also debarred for two consecutive semesters from class work and all 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 out- sider, he will be handed over to the police and a case is registered against him.</p>
4.	<p>If a student smuggles inside the examination hall an Answer book or additional sheet or takes out or arranges to send out the question paper, or answer book or additional sheet during or after The examination.</p>	<p>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. The candidate is also debarred from class work for two consecutive semesters and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.</p>
5.	<p>If a student uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting/threatening him/her to award pass marks</p>	<p>Cancellation of the performance in that subject</p>

<p>6. If a student refuses to obey the orders of the Chief Superintendent / COE / 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 duty in or outside the examination hall causes injury to his person or to any other persons whether by words, either r 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 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.</p>	<p>Such a student(s) shall be expelled from the examination hall along with cancellation of their performance in that subject and all other subject she candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate(s) will be debarred from the college and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.</p>
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<p>7. If a student leaves the exam hall taking away answer script or intentionally tears/mutilates/deforms the script or any part thereof inside or outside the examination hall.</p> <p></p> <p></p>	<p>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. The candidate is also debarred from class work and examinations for two consecutive semesters. The continuation of the Course by the candidate is subject to the academic regulations.</p> <p></p>
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8.	If a student is in possession of 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. The candidate is also debarred and forfeits the seat. Candidate will be handed over to police and, a police case will be registered against him/her.
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 subject she 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. 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.	If a student comes to the examination hall in a drunken condition .	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 that semester.
11.	If copying is 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 examinations.
12.	Any other malpractice not covered in the above clauses i.e. from 1 to 11 reported to the Principal for further action/ suitable punishment.	As decided by Academic Council



NRI INSTITUTE OF TECHNOLOGY(AUTONOMOUS)

(Permanently Affiliated to JNTUK, Kakinada)

(Accredited by NAAC with 'A' Grade, ISO 9001 : 2015 Certified)

POTHAVARAPPADU-521 212 VIJAYAWADA, Krishna Dist.,AP

Ph : 0866-2469666 Website : nrigroupofcolleges.com

ACADEMIC REGULATIONS NRA18 FOR MBA (REGULAR)

(CHOICE BASED CREDIT SYSTEM)

The MBA Degree shall be conferred to the candidates who are admitted to the program and fulfill all the requirements for the award of the Degree:

1.0.ELIGIBILITY FOR ADMISSIONS:

Admission to the above programme shall be made subject to the eligibility, qualifications and specializations prescribed by the University from time to time. Admissions shall be made on the basis of merit rank obtained by the qualifying candidate at ICET examination or at an Entrance Test conducted by the university subject to reservations.

2.0.AWARD OF MBA DEGREE:

2.1.A Student shall be declared eligible for the award of MBA degree, if he pursues a course of study and completes it successfully for not less than two academic years and not more than four academic years.

2.2.A Student, who fails to fulfill all the academic requirements for the award of the degree within FOUR academic years from the year of their admission, shall forfeit his/her seat in MBA course.

3.0.ATTENDANCE:

3.1.A candidate shall be deemed to have eligibility to write end semester examinations if he has put in a minimum of 75% of attendance in aggregate of all the subjects.

3.2.Condonation for shortage of attendance up to 10% i.e. 65% and above and below 75% may be given by the College Academic Committee.

3.3.Condonation for shortage of attendance shall be granted only on genuine and valid reasons on representation by the candidate with supporting evidence

3.4.Shortage of attendance below 65% shall in no case be condoned.

3.5.A candidate shall not be promoted to the next semester unless he fulfills the attendance requirements of the previous semester.

4.0.EVALUATION:

The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks for theory & 100 marks for Laboratory Courses, on the basis of the Continuous Internal Evaluation and Semester End Examination.

4.1. For the theory subjects, 60 marks shall be awarded based on the performance in the Semester-end Examination conducted for three hours duration. The question paper consists of 8 questions. Students have to answer one compulsory question (Case Study) and four other questions carrying 12 marks each. Remaining 40 marks shall be awarded based on Internal Examination.

The Internal Examination will have two components:

- a) First 20 marks are allotted for Mid-term Examination with duration of 120 minutes. The student has to answer four questions out of four questions. Each question carries 10 marks. The total marks shall be reduced to 20 marks.
- b) In the remaining 20 marks, 15 marks are allotted for Mini Report (10 marks for preparation of Report and 05 marks for presentation in the class room) in the respective subject. 05 marks are allotted for subject wise class room activities*

Two Internal Examinations of 40 marks each will be conducted in each semester and average marks will be taken for awarding the Internal Marks.

4.2. For practical subjects, 60 marks shall be awarded based on the performance in the End Semester Examinations, 40 marks shall be awarded based on the day to day performance as internal marks.

4.3. A candidate shall be deemed to have secured the minimum academic requirements in a subject if he secures a minimum of 40% of marks in the End Examination and a minimum aggregate of 50% of the total marks in the End Semester Examination and Internal Evaluation taken together.

4.4. A candidate shall be given one chance to re-register for each subject provided the internal marks secured by a candidate are less than 50% and he has failed in the end examination. In such case, candidate must re-register for the subject(s) and secure required minimum attendance. Attendance in the re-registered subject(s) has to be calculated separately to become eligible to write the End Examination in the re-registered subject(s).

The attendance of re-registered subject(s) shall be calculated separately to decide upon the eligibility for writing the End Examination in those subject(s). In the event of taking another chance, the internal marks and End Examination marks obtained in the previous attempt are nullified. At a given time, a candidate is permitted to re-register for a maximum of two subject(s) in addition to the subjects of a regular semester.

- 4.5. A candidate shall be allowed to submit the project report only after fulfilling the attendance requirements of all the semesters.
- 4.6. The Viva-voce Examination shall be conducted after completion of the fourth semester End Examinations.
- 4.7. Laboratory examination for MBA course must be conducted with two Examiners, one of them being Laboratory Class Teacher and second examiner shall be other than Class Teacher.

5.0. EVALUATION OF PROJECT WORKS :

- 5.1. A Project Review Committee (PRC) of the institution is to be constituted with Principal/Director as chairperson, heads of the departments, which are offering PG courses, head of the department and two other senior faculty members of the department offering MBA.
- 5.2. Registration of Project work: A Candidate is permitted to register for the project work after satisfying the attendance requirement of all the courses (theory and practical courses) up to II semester.
- 5.3. Every candidate shall work on projects approved by the PRC of the institution.
- 5.4. A student has to undergo practical training for a period of 6 weeks in a Corporate Enterprise after the Second Semester/Summer vacations. In training period, the candidates should work on a specific problem related to the elective subject. At the end of practical training, the student should submit a certificate obtained from the organization.
- The student should prepare a Project Report under the supervision of a guide from the faculty of management of the concerned college. However, the students who prepare Project Report in the area of systems can also work under the guidance of Faculty member from Computer Science Department.
- 5.5. Three copies of the project dissertation certified by the project supervisor shall be submitted to the college/school.
- 5.6. The project report shall be adjudicated by one examiner selected by the Principal. For this, Head of the department shall submit a panel of 3 examiners, who are eminent in that field.
- 5.7. The viva-voce examination of the project report shall be conducted by a board consisting of the External examiner, the Head of the Department and Supervisor. The Candidate should have to secure Grade A/Grade B/Grade C in Project viva-voce.
- 5.8. Head of the Department shall coordinate and make arrangements for the conduct of viva-voce examination.

5.9.If the candidate fails to secure Grade A/Grade B/Grade C in project viva-voce, the candidate will retake the viva-voce examination after three months. If he fails to get Grade A/Grade B/Grade C at the second viva-voce examination, he will not be eligible for the award of the degree, unless the candidate is asked to revise and resubmit. If the candidate fails to secure Grade A/Grade B/Grade C again, the project shall be summarily rejected.

Grade A: Excellent,
Grade B: Good,
Grade C: Satisfactory,
Grade D: Unsatisfactory.

6.0.AWARD OF LETTER GRADES:

A letter grade and grade points will be awarded to a student in each course based on his performance, as per the grading system given below.

Theory/Drawi ng/Elective/Se lf Study Course (%)	Laboratory / Seminar / Internship/ Mini Project / Project Work (%)	Grade Points	Letter Grade
≥ 90	≥ 90	10	O(Outstanding)
≥ 80&<90	≥ 80&<90	9	A+ (Excellent)
≥ 70&<80	≥ 70&<80	8	A(Very Good)
≥ 60&<70	≥ 60&<70	7	B (Good)
≥ 50&<60	≥ 50&<60	6	C(Average)
<50	<50	0	F(Fail)
Absent	Absent	AB	ABSENT

7.0.COMPUTATION OF SGPA & CGPA:

7.1.Semester Grade Point Average (SGPA)* for semester:

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

$$\text{SGPA} = \frac{\Sigma(\text{CR} \times \text{GP})}{\Sigma \text{CR}}$$

for each semester.

where

CR = Credits of a course

GP = Grade Points awarded for a course

SGPA is calculated for a candidate who passed all the courses in that semester

7.2.Cumulative Grade Point Average (CGPA) for Entire Programme:

The CGPA is calculated as given below

$$\text{CGPA} = \frac{\Sigma(\text{CR} \times \text{GP})}{\Sigma \text{CR}}$$

for Entire Programme.

where CR = Credits of a course

GP = Grade points awarded for a course

7.3. Conversion Formula for CGPA to Marks in Percentage

The approximate equivalence of marks to a given CGPA is calculated by using the formula:

$$\text{Percentage Equivalence of CGPA} = [\text{CGPA} - 0.5] \times 10$$

8.0. AWARD OF DEGREE AND CLASS:

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of MBA Degree he shall be placed in one of the following three classes:

CLASS AWARDED	% OF MARKS
First class with Distinction	70% and above
First class	Below 70% but not less than 60%
Second class	below 60% but not less than 50%

(The marks in internal evaluation and end examination shall be shown separately in the marks memorandum)

9.0. WITH HOLDING OF RESULTS:

If the candidate has not paid any dues to the institution or if any case of indiscipline is pending against him, the result of the candidate will be withheld. The issue of degree is liable to be withheld in such cases.

10.0. TRANSITORY REGULATIONS:

Candidates who have discontinued or have been detained for want of attendance or who have failed after having undergone the course are eligible for admission to the same or equivalent subjects as and when subjects are offered, subject to 4.4

11.0. GENERAL:

- 11.1. The academic regulations should be read as a whole for purpose of any interpretation.
- 11.2. In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.
- 11.3. The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.
- 11.4. Wherever the word he, him or his occur, it will also include she and her

MALPRACTICES RULES

DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices/ Improper Conduct	PUNISHMENT
	<i>If the candidate:</i>	
1(a)	If a student possesses or tries to access any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with correlated 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)	If as student gives assistance or guidance or receives any such help from any other candidate orally or through gestures, communicates through cell phones with any candidate or persons in or outside the exam hall.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject. In case of an outsider, he will be handed over to the police and a case will be registered against him.
2	If a student is found to have 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 he/she is appearing.	Expulsion from the examination hall and cancellation of the performance in that subjects well as all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear in the remaining examinations of that Semester. The Hall Ticket of the candidate will be cancelled.
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 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	If a student smuggles inside the examination hall an Answer book or additional sheet or takes out or arranges to send out the question paper, 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. The candidate is also debarred from class work for two consecutive semesters and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5	If a student uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting/threatening him/her to award pass marks	Cancellation of the performance in that subject
6	If a student refuses to obey the orders of the Chief Superintendent / COE / 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 duty in or outside the examination hall causes injury to his person or to any other persons whether by words, either r 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 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.	Such a student(s) shall be expelled from the examination hall along with cancellation of their performance in that subject and all other subject she candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate(s) will be debarred from the college and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7	If a student leaves the exam hall taking away answer script or intentionally tears/ mutilates/ deforms 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. The candidate is also debarred from class work and examinations for two consecutive semesters. The continuation of the Course by the candidate is subject to the academic regulations.

8	If a student is in possession of 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. The candidate is also debarred and forfeits the seat. Candidate will be handed over to police and, a police case will be registered against him/her.
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 subject she 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. 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	If a student comes to the examination hall in a drunken condition	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 that semester.
11	If copying is 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 examinations.
12	Any other malpractice not covered in the above clauses i.e. from 1 to 11 reported to the Principal for further action/suitable punishment.	As decided by Academic Council

NRIA20

REGULATIONS



NRI INSTITUTE OF TECHNOLOGY(AUTONOMOUS)
(Permanently Affiliated to JNTUK, Kakinada)
(Accredited by NAAC with 'A' Grade, ISO 9001 : 2015 Certified)
 POTHAVARAPPADU-521 212 VIJAYAWADA, Krishna Dist., AP
 Ph : 0866-2469666 Website : nrigroupofcolleges.com

ACADEMIC REGULATIONS (NRIA20) B.TECH. (REGULAR)
(CHOICE BASED CREDIT SYSTEM)

Academic Program of the College is governed by rules and regulations as approved by the Academic Council (AC), the highest academic body of the College. The NRIA20 academic rules and regulations are effective from the academic year 2020-21 for students admitted into four years under graduate Programmes offered by the college leading to Bachelor of Technology (B.Tech.)

1. ELIGIBILITY CRITERIA FOR ADMISSION

The eligibility criteria for admission into B. Tech Programme shall be as per the guidelines issued by the Andhra Pradesh State Council of Higher Education (APSCHE) or by any other competent authority.

2. PROGRAMMES OFFERED (UNDER GRADUATE)

The following B. Tech Programmes are offered at present

1. Civil Engineering (CE)
2. Electrical and Electronics Engineering (EEE)
3. Mechanical Engineering (ME)
4. Electronics and Communication Engineering (ECE)
5. Computer Science and Engineering (CSE)
6. Information Technology (IT)
7. CSE- Artificial Intelligence and Machine Learning
8. CSE- Data Science

3. AWARD OF B. TECH DEGREE

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

i) 4 Year B. Tech Programme:

- a) Pursued a course of study for not less than four academic years and not more than eight academic years.
- b) Students, who fail to complete their Four years Course of study within Eight years or fail to acquire the 160 Credits for the award of the degree

within eight academic years from the year of their admission shall forfeit their seat in B. Tech course and their admission shall stand cancelled.

c) Registers for prescribed **160** credits and must secure all the **160** credits.

ii) 3 Year B. Tech Programme under Lateral Entry Scheme (LES):

- a) Pursued a course of study for not less than three academic years and not more than six academic years.
- b) Students, who fail to complete their Three years Course of study within Six years or fail to acquire the **120** Credits for the award of the degree within six academic years from the year of their admission shall forfeit their seat in B. Tech course and their admission shall stand cancelled.
- c) Registered for prescribed **120** credits and secured **120** credits.

3.2 Award of Minor or Honours Degree:

A student shall be eligible for the award of B.Tech degree with Honors or Minor if he/she earns 20 credits (**minimum 12 credits from theory courses and 8 credits from Lab courses**) in addition to the 160 credits. A student shall be permitted to register either for Honors or for Minor and not for both simultaneously.

Under graduate Degree with Honors/Minor shall be issued by the University to the students who fulfill all the academic eligibility requirements for the B. Tech program and Honors/Minor program. The objective is to provide additional learning opportunities to academically motivated students.

4. DURATION OF THE PROGRAMME

The duration of the Programme is four academic years consisting of eight semesters. However, a student is permitted to complete the course work of B. Tech Programme in the stipulated time frame of **EIGHT** years from the date of joining. Students admitted into third semester of B. Tech Programme directly through Lateral Entry (LE) scheme, shall have to complete the course work of B. Tech Programme in the stipulated time frame of **SIX** years from the date of joining.

5. MEDIUM OF INSTRUCTION

The medium of instruction is English in all academic activities.

6. MINIMUM INSTRUCTION DAYS

Each academic year shall be divided into two semesters. The minimum instruction days for each semester shall be 90 days.

7. CATEGORIZATION OF COURSES

The curriculum of each Programme shall contain various courses indicated in the following categories to train the students for employment, higher learning & research and entrepreneurship.

- i) **Humanities and Social Sciences (HS):** These courses include professional English, Industrial Management, Managerial Economics & Financial Accountancy, Communication skills etc.
- ii) **Basic Sciences (BS):** These courses include Mathematics, Physics, Chemistry, etc.
- iii) **Engineering Sciences (ES):** These courses include Basics of Electrical / Electronics / Mechanical / Civil / Computer Engineering / Instrumentation and Engineering practices/Engineering Graphics.
- iv) **Professional Core (PC):** These courses are the core courses that provide the requisite foundation in the chosen branch of engineering.
- v) **Professional Elective (PE):** These courses are the elective courses opted by the students relevant to the chosen branch of engineering that provides the requisite foundation in a specific area of specialization.
- vi) **Open Elective (OE):** These courses are inter-disciplinary in nature offered by other departments. The department offers an elective course (OE/PE), if the number of students registered in such a course is a minimum of 30 or more.
- vii) **Personality Development (PD):** These courses include Integrated Learning Practices (ILPs), Mandatory Courses. (MCs) & Extra-curricular/Co-curricular activities and help the students into a well-trained professionals and good human beings with a high employability potential, good communication skills, soft skills, good engineering practices, personality transformation, professional presentation skills and networking skills.
 - a) **Integrated Learning Practices:** These courses include Mini project, Seminar, Internship, and Project work. These courses are intended to provide students with specific learning outcomes in a branch of engineering, apart from broad skills are necessary for enhancing professional skills among the future engineers.
 - b) **Mandatory Non-credit Courses:** The Environmental Studies, Professional Ethics & Human Values, Employability Enhancement Skills, Problem-assisted learning and Problem-based learning are non-credit courses and relevant for value education and for enhancing employability skills.
 - c) **Extra and Co- Curricular Activities:** In addition to the above courses to enhance the overall personality & character of students and make them aware of societal needs, the extra-curricular/co-curricular activities are included, which do not carry any credits. These activities include

National Service Scheme (NSS), National Cadet Corps (NCC), Yoga & Meditation, Sports & Games and Professional club activities.

d) Industrial Training: The students shall undergo Internship/ Industrial training / In-house training to expose them to the practical environment.

Viii) Online / Self Learning courses (Optional): An opportunity is given to the students to choose online course offered by premier institutions like IITs/ Foreign institutions/ reputed universities /NPTEL (SWAYAM) /MOOCS to enhance the learning skills or a self-study course under guidance of the faculty advisor to enhance the self-learning capabilities. The student registering for online courses shall be permitted to seek exemption from as many electives that are offered in the VIII semester to focus more on the project work. A student shall undertake the project work either within the college or premier institutions/ research laboratories/industries.

Every course of B. Tech. Program shall be placed in one of the nine categories as listed in table below:

S.No.	Category	Code	Suggested breakup of Credits (APSCHE)	Suggested breakup of Credits (AICTE)
1	Humanities and social science Including Management courses	HSMC	10.5	12
2	Basic Science courses	BSC	21	25
3	Engineering science courses	ESC	24	24
4	Professional core Courses	PCC	51	48
5	Open Elective Courses	OEC	12	18
6	Professional Elective Courses	PEC	15	18
7	Internship, seminar, project work	PROJ	16.5	15
8	Mandatory courses	MC	Non-credit	Non-credit
9	Skill Oriented Courses	SC	10	-
	Total Credits		160	160

Sumo

8. ASSESMENT OF CREDITS

- 1 Hr. Lecture (L) per week - 1 credit
- 1 Hr. Tutorial (T) per week - 1 credit
- 1 Hr. Practical (P) per week - 0.5 credits
- 2 Hours Practical (Lab)/week - 1 credit

9. ASSESSMENT AND EVALUATION

The performance of a student in each course shall be evaluated based on Continuous Internal Assessment (CIA) and Semester End Assessment (EA) or only Continuous Internal Assessment as indicated in the following table.

S. No	Category of Course	Marks	
		CIA	SEA
1	Theory Course (core, electives)	30	70
2	Laboratory Courses	30	70
3	Mandatory non-credit courses Environmental Studies, Professional ethics, Employability enhancement skills, Indian Constitution and IPR, Research Methodologies, Design thinking and innovation.	30	70
4	Mini Project	100	--
5	Seminar	100	--
6	Internship	100	--
7	Project work	60	140

9.1 THEORY COURSES

9.1.1 Continuous Internal Assessment (CIA): FOR 30 MARKS

The performance of the student in each theory course is evaluated by the faculty/course coordinator all through the semester; with two Class Tests, mid-term-I (Subjective -I and Online Objective -I), Mid-term exam-II (Subjective -II and Online Objective -II) and two Assignments. The Continuous Internal Assessment of a theory course consists of four components as indicated in the following table.

S. No	Component	Marks
1	Class Tests	5M
2	Assignments	5M
3	Subjective examinations	15M
4	Online Objective examinations	5M
Total		30M

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i) Class Tests (5 Marks):

Two class tests each for 10 marks will be conducted for 45 minutes duration. The class tests shall be conducted with syllabi from units I for the first and unit III 50% & unit IV for the second.

Sum of 80% marks of better scored class test and 20% of less scored are considered for final assessment.

Question bank with minimum six comprehensive questions from the concerned UNIT of the syllabus will be given at least a week in advance before the commencement of class Test.

The question paper shall contain two comprehensive questions, each one for Five Marks. The student is required to answer all the questions. Class Test marks scale down for 5 marks.

ii) Subjective Examinations (15 marks):

Each Subjective examination is conducted for 30 marks with 1½ hours duration. The Subjective examinations shall be conducted with syllabi from units I, II and 50% of III for the first and units III remaining 50%, IV & V for the second.

Sum of 80% marks of better scored Subjective examination and 20% of less scored are considered for final assessment. Subjective examination marks scale down for 15 marks.

Each Subjective examination consists of 'two' questions one from each unit (I & II for MID I and IV & V for MID II) with "either" / "or" option carrying 12 marks and third question from 50% syllabus of III unit with "either" / "or" option, carrying 6 marks.

iii) Online Objective Examinations (5 marks):

Two online Objective examinations of 20 minutes each shall be conducted with syllabi from units I, II and 50% of III for the first and units III remaining 50%, IV & V for the second.

The each online Objective examination shall have 20 multiple choice questions and each question carries ¼ mark.

Sum of 80% marks of better scored online objective examination and 20% of less scored are considered for final assessment.

iv) Assignments (5 marks):

Two assignments each shall be conducted with syllabi from unit II & first 50% of unit III for the first and unit V for the second.

Separate problems are to be given for each group (3 to 4 students).

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The assignments for five marks to provide broadened exposure to the course. The questions shall include problem solving approach, problem analysis & design, implementation, case studies etc.

Sum of 80% marks of better scored Assignment and 20% of less scored are considered for final assessment.

Note:1. For the subjects such as Engineering Graphics, Engineering Drawing, Machine Drawing, Design & Drawing of R.C., Structures, Steel Structures, Irrigation Structures, Estimation Cost and Valuation, Building Planning and Drawing etc., the distribution of 30 marks for internal assessment shall be 15 marks for day-to-day work, 15 marks based on two Subjective examinations. Each Subjective examination is conducted for 30 marks with two hours duration. Sum of 80% marks of better scored subjective examination and 20% of less scored are considered for final assessment. Subjective examination marks are scale down for 15 marks.

2. For Mandatory non credit courses, the distribution of 30 marks for internal assessment shall based on two Subjective examinations. Each Subjective examination is conducted for 30 marks with 1½ hours duration. Sum of 80% marks of better scored subjective examination and 20% of less scored are considered for final assessment.

9.1.2 Semester End Assessment (SEA)

It shall be conducted by chief controller of examinations at the end of each semester, as per the academic calendar and with a written examination for theory courses.

Semester end Assessment consists of five questions one from each unit with "either" / "or" option, carrying 14 marks.

Note:1. For subjects like Professional English, Engineering Graphics, Engineering Drawing, Machine Drawing, Design & Drawing of R.C., Structures, Steel Structures, Irrigation Structures, Estimation Cost and Valuation, Building Planning and Drawing etc., the pattern of semester end assessment is given along with the syllabus of respective subject.

2. However, the paper setting and assessment for Engineering Graphics is only internal.



9.2 LABORATORY COURSES

9.2.1 Continuous Internal Assessment (CIA): for 30 Marks

The continuous internal assessment for laboratory courses is based on the following parameters:

Parameter	Marks
Day-to-day work	10M
Record and observation	5M
Internal test	15M
Total	30M

9.2.2 Semester End Assessment (SEA)

It shall be conducted by chief controller of examinations at the end of each semester, as per the academic calendar. The performance of the student in laboratory courses shall be evaluated jointly by internal and external examiners for 3 hours duration as per the parameters indicated below:

Parameter	Marks
Procedure	20M
Experimentation / Program	25M
Result	15M
Viva voce	10M
Total	70M

9.3 NON CREDIT COURSES:

Mandatory courses:

Courses like Environmental Sciences, Universal Human Values, Ethics, Indian Constitution, Essence of Indian Traditional Knowledge etc., shall be included in the curriculum as non-credit mandatory courses. Environmental Sciences is to be offered compulsorily as mandatory course for all branches.

The Semester end examination question paper pattern is similar to that of any other theory course. **However, the paper setting and assessment is only internal.** A student shall secure a minimum of 40% aggregate marks (CIA and SEA marks put together), subject to securing a minimum of 35% marks in the Semester End Assessment. The grades earned by the students from Mandatory Learning Courses will not be considered for the calculation of CGPA.

(Handwritten signature)

For Induction program:

There shall be mandatory student induction program for freshers, with a three-week duration before the commencement of first semester. 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.

Student is required to submit comprehensive report about the program. Concerned faculty members shall evaluate the report and rate the performance of the student as satisfactory or not-satisfactory.

9.4 MINI PROJECT

A student is required to undergo a mini project of his/her choice by applying theoretical concepts to develop a practical component /element/system that includes design/ testing/ analysis. The performance of a student in the mini project shall be assessed in reviews by a Departmental Review committee consisting of HOD and two senior faculty members of the department.

The performance of a student in mini project shall be evaluated based on two reviews. However, a student who fails to secure minimum 50% marks will be permitted to reappear in the subsequent semester(s). There shall be no Semester end Assessment.

9.5 SEMINAR

A student shall deliver a seminar on any emerging topic of his/her choice from the core technical domain. The student shall submit a duly-certified seminar report. A Departmental Review Committee consisting of HOD and two senior faculty members of the department is constituted for evaluation.

A student who fails to secure minimum 50% marks will be permitted to reappear in the subsequent semester(s). There shall be no semester end Assessment.

9.6 INTERNSHIP

Internship must involve practical work related to systems engineering, industry practices etc. The students shall undergo internship for a period of minimum 6 weeks continuously at the end of IV or VI semester and shall be evaluated in VII semester. The internship can be carried out at premier institutions/ research laboratories/industries.



There shall also be mandatory full internship in the final semester of the Programme along with the project work.

A student shall submit a report on the training undergone, along with a certificate from the organization. A Departmental review Committee consisting of HOD and two senior faculty members of the department is constituted for evaluation.

A student, who fails to secure minimum 50% marks, will be permitted to reappear in the subsequent semester(s). There shall be no Semester End Assessment.

9.7 PROJECT WORK

A student is required to undertake a project work by using the knowledge acquired by him/her during study. The student is expected to design and build a complete system or subsystem on an area of interest. A project work shall be carried out by a batch of students not exceeding 4 members, under a faculty supervisor.

9.7.1 Continuous Internal Assessment (CIA)

The CIA for project work shall be based on project survey and project implementation and is evaluated by a departmental review committee consisting of two senior faculty, project supervisor and HOD.

9.7.2 Semester end Assessment (SEA)

A batch of students shall submit a duly-certified project report to the department on a specified time. They shall make a presentation on the project work before a three-member committee consisting of external examiner, project supervisor and HOD.

A student who fails to secure minimum 50% marks or abstains is permitted to reappear in the advanced supplementary examinations or when offered next.

9.8 EXTRA-CURRICULAR/CO-CURRICULAR ACTIVITIES

The participation of a student is compulsory in any one of the extra-curricular/co-curricular activities (non-credit) such as NSS, NCC, Yoga & Meditation, Sports & Games, Professional club activities during the semesters I to VII. The performance of a student in the extra-curricular/co-curricular activities is evaluated during VII semester by a three-member committee consisting of HOD and two senior faculty members of the department as per the following parameters:

A student shall secure a satisfactory grade (SA) which will be indicated in the VII semester grade card, if he/she obtains the following certificates.

- i) NSS/ NCC- 1 No.
- ii) Yoga & Meditation certificate (20 contact hours) - 1 No.



- iii) Sports & games certificate (20 contact hours)-1 No.
- iv) Professional club activities- 1 No.
- v) Co-curricular activity certificates - 1 No.

The satisfactory grade (SA) will be awarded, if he/she obtains 3 certificates of above 5 certificates.

For physically disabled students, the satisfactory grade (SA) will be awarded, if he/she obtains 3 certificates in co-curricular activities and/or Extra Curricular activities (essay writing, debate competitions, technical & general quizzes, symposia etc).

However, a student who secures unsatisfactory grade (US) shall reappear in the subsequent semester(s) in order to complete the degree requirements.

9.9 ONLINE COURSES LIKE MOOCS/SWAYAM (NPTEL) / SELF LEARNING COURSES

A student shall be permitted to register for online / self-learning course either in VII or VIII semesters as approved by the Departmental Academic Committee (DAC) and BOS.

- A student is permitted to register for an online course offered by JNTUs/IITs/NITs/SWAYAM/MOOCs. The HOD shall appoint a faculty member as coordinator for such courses. The evaluation done by the external agencies shall be converted into suitable grades as per the evaluation methodology approved by a committee constituted by the head of the institution.
- A student is permitted to register for a self-study course. A self-study course shall be department concerned or inter-disciplinary. No formal lectures will be delivered for a self-learning course. The syllabus of the course shall be approved by BOS. One faculty member for each course will be nominated by HOD to monitor the progress made by the student. The question paper pattern and evaluation process are similar to that of any other theory course.

9.9 SKILL ORIENTED COURSES:

There shall be 05 skill-oriented courses offered during III to VII semesters. Among the five skill courses, four courses shall focus on the basic and advanced skills related to the domain courses and the remaining one shall be a soft skills course.

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10. ATTENDANCE REQUIREMENTS

- i) A student shall be eligible to appear for End Semester Examinations if he/she acquires a minimum of 75% of attendance in aggregate of all the subjects in a semester.
- ii) Shortage of Attendance below 65% in aggregate shall in *NO* case be condoned.
- iii) Condoning of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester will be considered for genuine reasons such as medical grounds and participation in co-curricular and extra-curricular activities and shall be granted only after approval by a committee duly appointed by the college. The student should submit application for medical leave along with medical certificate from a registered medical practitioner within three days from reporting to the class work after the expiry of the Medical Leave. In case of participation in co-curricular and extra-curricular activities, either in the college or other colleges, students must take prior written permission from HOD concerned and should also submit the certificate of participation from the organizer of the event within three days after the completion of the event. Only such cases will be considered for condoning attendance shortage.
- iv) A student shall be eligible to claim for condonation of attendance shortage for a maximum of two times during the four-year (eight semesters) course work of B. Tech / three year (six semesters) course work of B. Tech, Lateral Entry. However, additional one-time condonation exclusively for IV Year shall be considered on genuine valid reasons.
- v) A student will not be promoted to the next semester unless he satisfies the attendance requirement of the current semester. He may seek re-admission for that semester when offered next.
- vi) Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examination of that class and their registration shall stand cancelled.
- vii) A fee stipulated by the college shall be payable towards condonation of attendance shortage.
- viii) A stipulated fee shall be payable towards condonation of shortage of attendance to the college. (a) A student is eligible to write the Semester end examinations if he acquires a minimum of 50% in each subject and 75% of attendance in aggregate of all the subjects.



11. MINIMUM ACADEMIC REQUIREMENTS

i) Pass requirement:

- a) A candidate shall be declared to have passed in individual theory if he/she secures a minimum of 40% aggregate marks (CIA & SEA marks put together), subject to securing a minimum of 35% marks in the Semester End Assessment. If he fails to fulfill above requirements, candidate shall be given "F" grade and no credits will be awarded to the candidate.
- b) A candidate shall be declared to have passed for all laboratory/ project work if he/she secures a minimum of 50% aggregate marks (CIA & SEA marks put together), subject to securing a minimum of 40% marks in the Semester End Assessment.
- c) On passing a course of a Programme, the student shall earn the credits assigned to that course.

ii) PROMOTION RULE

a) 4 Year B. Tech Programme:

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

b) 3 Year B. Tech Programme under Lateral Entry Scheme:

- A student shall be promoted from second year to Third year if he fulfills the minimum attendance requirements.
- 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.

12. PROCEDURES FOR SEMESTER END EXAMINATIONS

i) Supplementary Examinations

- a) Supplementary examinations of even semester will be conducted after the odd semester end examinations and vice versa
- b) Semester end supplementary examinations shall be conducted till next regulation comes into force for that semester.
- c) Thereafter, supplementary examinations will be conducted in the equivalent courses of new regulations as decided by the Board of Studies concerned subject to the maximum course period.

ii) Advanced Supplementary Examinations

Student(s), who failed in theory/ laboratory courses of 4/4 B.Tech. in Eighth semester, can appear for advanced supplementary examinations to be conducted within 15 days after the publication of result.

In case the revaluation process is not complete before the date of Advanced Supplementary Examination the candidate be allowed to take Advanced Supplementary Examination. After writing the examination, if the candidate passes the examination in revaluation or gets higher grade in revaluation and wishes to retain the grade in revaluation, the fee paid for writing the examinations will be refunded. If the candidate chooses to retain the marks obtained in the examination, he/she will be allowed to do so in which case examination fee paid need not be refunded.

However, those students who fail in these advanced supplementary examinations of 4/4 B.Tech, shall appear for subsequent examinations along with regular candidates, in the examinations to be conducted at the end of the respective academic semester.

iii) Revaluation

- a) Students can submit the applications for revaluation, along with the prescribed fee receipt for revaluation of his answer script(s) of theory course(s) as per the notification issued by the Controller of Examinations.
- b) The Controller of Examinations shall arrange for revaluation of such answer script(s).
- c) An examiner, other than the first examiner, shall reevaluate the answer script(s).
- d) If the variation in marks of two evaluations is less than 15% of total marks, the benefit in revaluation will be treated as "Not Benefited" and the marks obtained in the first valuation will only be awarded to the candidate. However, if the marks obtained in revaluation is less than 15% of marks obtained in first valuation but it leads to a "Pass" in the

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- examination or leads to "Change of Grade", the marks obtained in the revaluation will be awarded to the candidate.
- e) If the variation in marks of two evaluations is more than 15% of total marks, there shall be a second revaluation and in such case the highest marks secured in any two valuations shall be averaged for award of grade to the candidate.

13. AWARD OF LETTER GRADES

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.

Theory/ Drawing/Elective/ Self Study Course (%)	Laboratory / Seminar / Internship/ Mini Project / Project Work (%)	Grade Points	Letter Grade
≥ 90	≥ 90	10	A+ (Outstanding)
≥ 80 & < 90	≥ 80 & < 90	9	A (Excellent)
≥ 70 & < 80	≥ 70 & < 80	8	B (Very Good)
≥ 60 & < 70	≥ 60 & < 70	7	C (Good)
≥ 50 & < 60	≥ 50 & < 60	6	D (Average)
≥ 40 & < 50	-	5	E (Pass)
< 40	< 50	0	F (Fail)
ABSENT	≥ 50	SA	Satisfactory
	< 50	US	Un Satisfactory
	ABSENT	AB	Absent

CALCULATION OF SEMESTER GRADE POINT AVERAGE (SGPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA):

- i. The Semester Grade Point Average (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.

$$SGPA = \frac{\sum (C_i \times G_i)}{\sum C_i}$$

where, C_i is the number of credits of the i^{th} subject and G_i is the grade point scored by the student in the i^{th} course



- ii. **The Cumulative Grade Point Average (CGPA)** will be computed in the same manner taking into account all the courses undergone by a student over all the semesters of a program, i.e.
- $$\text{CGPA} = \frac{\sum (C_i \times S_i)}{\sum C_i}$$
- where 'S_i' is the SGPA of the ith semester and C_i is the total number of credits in that semester
- iii. Both SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.
- iv. While computing the SGPA/CGPA, the subjects in which the student is awarded Zero grade points will also be included.
- 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.
- vii. As per AICTE regulations, conversion of CGPA into equivalent percentage as follows:

$$\text{Equivalent Percentage} = (\text{CGPA} - 0.50) \times 10$$

15. 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:

CGPA	Class
≥7.5	First Class with Distinction*
≥6.5 & < 7.5	First Class
≥5.5 & < 6.5	Second Class
≥4 & < 5.5	Pass Class
< 4	Fail

* With no subject failures

16. ACADEMIC FLEXIBILITY

- i) A student shall be permitted to take up only project work either within the college or at any premier institutions/ research laboratories/ industries, if students to choose and completes online course offered by premier institutions like IITs/ Foreign institutions/ reputed universities/NPTEL(SWAYAM)/MOOCS

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- ii) A student is permitted to register, after completion of IV semester, for online courses / self-study courses in lieu of electives offered in the VIII semester.
- iii) Scope is provided to the students for choosing the programme electives of their choice and to enhance their knowledge subsequently.
- iv) Scope is provided to the students for choosing the open electives of their choice and to enhance their knowledge in inter-disciplinary areas.
- v) Scope is provided for the students to opt for on-line/self-study course of their choice to enhance their self-learning capabilities.
- vi) Gap year facility is provided to merit students to undergo training programs at premier institutions/ research laboratories/industries.

17. AWARD OF RANK

The rank shall be awarded based on the following:

- i) Ranks shall be awarded in each branch of study for the top 10% percent of the students appearing for the regular end semester examinations.
- ii) The rank will be awarded only to those students who complete their degree within four academic years as regular student.
- iii) For awarding rank in each branch, the CGPA calculated based on the grades secured at the first attempt only shall be considered.
- iv) Award of prizes, scholarships, or any other honors shall be based on the rank secured by a candidate, consistent with the desire of the donor, wherever applicable.

18. RE-ADMISSION CRITERIA

- i) A candidate, who is detained in a semester due to lack of attendance must obtain written permission from the Principal for readmission into the same semester after duly fulfilling the required norms stipulated by the college and by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs.1,000/-.
- ii) A candidate, who is not promoted either to III year or IV year due to lack of required credits can seek admission into III / IV year in subsequent years after obtaining the required credits as stipulated in regulation 13 by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-.

19. GAP YEAR - CONCEPT OF STUDENT ENTREPRENEURSHIP IN RESIDENCE

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 university 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.

Gap Year facility is extended by the committee chaired by the Principal to the outstanding students who wish to pursue entrepreneurship during their course of study with a break of one year or two years. This is extended to two years at the most and these two years would not be counted for the maximum time period of graduation. The gap year facility is given to ensure syllabus continuity at the time of joining back and after an appraisal process by an incubator where the student is attached. Students who avail gap Year facility should follow transitory regulations.

First class with distinction will be awarded to those students who availed themselves of gap year facility to pursue entrepreneurship subject to fulfilment of all conditions stipulated in academic regulations for the award of first class with distinction.

20. CURRICULAR FRAMEWORK FOR MANDATORY INTERNSHIPS:

- a. 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.
- b. 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.
- c. 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.



- d. 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.

21. CURRICULAR FRAMEWORK FOR SKILL ORIENTED:

- 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. (See Annexure 1 for model skill courses)
- 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
- i. 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.

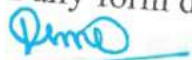
- g. If a student prefers to take a certificate course offered by external agency, the department shall mark attendance of the student for the remaining courses in that semester excluding the skill course in all the calculations of mandatory attendance requirements upon producing a valid certificate 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 University/Academic Council.

22. CURRICULAR FRAMEWORK FOR HONORS PROGRAMME:

- 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
 - a. 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.
- 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
 - 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).
- 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
- a. explore the possibility of introducing virtual labs for such courses with lab component. (Model pool list is enclosed in the Annexure-2)
- 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 university/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.

23. CURRICULAR FRAMEWORK FOR MINOR PROGRAMME:

1. a) 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 Civil Engineering under this scheme, he/she will get Major degree of Mechanical Engineering with minor degree of Civil Engineering
- a. 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.
2. 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, CE, ME etc. or industry tracks such as Artificial Intelligence (AI), Machine Learning (ML), Data Science (DS), Robotics, Electric vehicles, Robotics, VLSI etc.

3. The list of disciplines/branches eligible to opt for a particular industry relevant minor specialization shall be clearly mentioned by the respective BoS.
4. There shall be no limit on the number of programs offered under Minor. The University/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.
5. 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.
6. A student shall be permitted to register for Minors program at the beginning of
 - a. 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
 - b. 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.
7. 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).



8. 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.
9. 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 university/academic council.
10. 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.
11. A committee should be formed at the level of College/Universities/department to 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.
12. 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.

13. 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.
14. 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.

24. INDUSTRIAL COLLABORATIONS (CASE STUDY)

University-Industry linkages refer to the interaction between firms and universities or public research centers with the goal of solving technical problems, working on R&D, innovation projects and gathering scientific as well as technological knowledge. It involves the collaboration of Industries and Universities in various areas that would foster the research ecosystem in the country and enhance growth of economy, industry and society at large.

The Universities/Institutions (Autonomous) are permitted to design any number of Industry oriented minor tracks as the respective BoS feels necessary. In this process the Universities/Institutions can plan to have industrial collaborations in designing the minor tracks and to develop the content and certificate programs. Industry giants such as IBM, TCS, WIPRO etc., may be contacted to develop such collaborations. The

Universities/Institutions shall also explore the possibilities of collaborations with major Industries in the core sectors and professional bodies to create specialized domain skills.

25. BREAK IN STUDY

Student, who discontinues the studies for what-so-ever reason, can get readmission into appropriate semester of B. Tech Programme only with the prior permission of the Principal of the College, provided such candidate shall follow the transitory regulations applicable to the batch he joins. An



administrative fee of Rs.2,000/- per each year of break in study in addition to the prescribed tuition and special fees should be paid by the candidate to condone his break in study.

26. TRANSITORY REGULATIONS

A candidate, who is detained or discontinued in a semester, on readmission shall be required to do all the courses in the curriculum prescribed for the batch of students in which the student joins subsequently. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s) he was originally admitted into and substitute subjects are offered in place of them as decided by the Board of Studies. However, the decision of the Board of Studies will be final.

a) Transfer Candidates (From Non-Autonomous college affiliated to JNTUK)

A student who is following JNTUK curriculum, transferred from other college to this college in second year first semester or subsequent semesters shall join with the autonomous batch in the appropriate semester. Such candidates shall be required to pass in all the courses in the Programme prescribed by the Board of Studies concerned for that batch of students from that semester onwards to be eligible for the award of degree. However, exemption will be given in the courses of the semester(s) of the batch which he had passed earlier, and substitute subjects are offered in their place as decided by the Board of Studies. The student must clear all his backlog subjects up to previous semester by appearing for the supplementary examinations conducted by JNTUK for the award of degree. The total number of credits to be secured for the award of the degree will be the sum of the credits up to previous semester under JNTUK regulations and the credits prescribed for the semester in which a candidate joined after transfer and subsequent semesters under the autonomous stream. The class will be awarded based on the academic performance of a student in the autonomous pattern.

b) Transfer Candidates (From an Autonomous college affiliated to JNTUK)

A student who has secured the required credits up to previous semesters per the regulations of other autonomous institutions shall also be permitted to be transferred to this college. A student who is transferred from other autonomous colleges to this college in second year first semester

subsequent semesters shall join with the autonomous batch in the appropriate semester. Such candidates shall be required to pass in all the courses in the Programme prescribed by the Board of Studies concerned for that batch of students from that semester onwards to be eligible for the award of degree. However, exemption will be given in the courses of the semester(s) of the batch which he had passed earlier, and substitute subjects are offered in their place as decided by the Board of Studies. The total number of credits to be secured for the award of the degree will be the sum of the credits up to previous semester as per the regulations of the college from which he is transferred, and the credits prescribed for the semester in which a candidate joined after transfer and subsequent semesters under the autonomous stream. In case the candidate is having less number of credits for the period of study at the previous institution / college, it is mandatory that such candidate shall fulfill the requirement of credits earned as per this Institution/College by making up through NPTEL(SWAYAM)/MOOCS for awarding degree. In case the candidate earns more number of credits in the previous institution during that period, such candidate should earn the prescribed credits in the remaining course period in this institution even if the total credits are more than required for award of degree. The class will be awarded based on the academic performance of a student in the autonomous pattern.

27. WITHHOLDING OF RESULTS

If the student has not paid the dues, if any, to the College or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will also be withheld in such cases.

28. MALPRACTICES:

- i) The Principal shall refer the cases of malpractices in internal assessment tests and semester end Assessments to a malpractice enquiry committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.
- ii) Any action by the candidate trying to get undue advantage in the performance or trying to help another or derive the same through unfair means is punishable according to the provisions contained hereunder.



29. OTHER MATTERS

- i) Physically challenged candidates who have availed additional examination time and a scribe during their Intermediate/EAMCET examinations will be given similar concessions on production of relevant proof/documents. Students who are suffering from contagious diseases are not allowed to appear either for internal or semester end Assessments.
- ii) The students who participated in coaching / tournaments held at State / National / International levels through University / Indian Olympic Association during semester end external examination period will be promoted to subsequent semesters as per the guidelines of University Grants Commission Letter No. F.1-5/88 (SPE/PES), dated 18-08-1994 and other subsequent guidelines that may be issued by UGC / AICTE from time to time.
- iii) The Principal shall deal in an appropriate manner with any academic problem which is not covered under these rules and regulations, in consultation with the Heads of the Departments and subsequently such actions shall be placed before the Academic Council for ratification. Any emergency modification of regulation approved in the meetings of the Heads of the Departments shall be reported to the Academic Council for ratification.

30. GENERAL

- i) The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.
- ii) The academic regulations should be read as a whole for the purpose of any interpretation.
- iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.
- iv) Wherever the word he, him or his occurs, it will also include she, her and hers.



ANNEXURE-I

MALPRACTICE RULES

DISCIPLINARY ACTION FOR MALPRACTICE/ IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices / Improper conduct	Punishment
1(a)	If a student possesses or tries to access any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with correlated 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)	If a student gives assistance or guidance or receives any such help from any other candidate orally or through gestures, communicates through cell phones with any candidate or persons in or outside the exam hall.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject. In case of an outsider, he will be handed over to the police and a case will be registered against him.
2.	If a student is found to have 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 he/she is appearing.	Expulsion from the examination hall and cancellation of the performance in that subjects well as all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear in the remaining examinations of that Semester. The Hall Ticket of the candidate will be cancelled.
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 from the college and forfeits his seat. The performance of the original candidate



		Who has been impersonated, shall be cancelled in all the subjects of the examination (including practical's and project work) already appeared and shall not be allowed to appear in examinations of the remaining subjects of that semester. The candidate is also debarred for two consecutive semesters from class work and all 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 out- sider, he will be handed over to the police and a case is registered against him.
4.	If a student smuggles inside the examination hall an Answer book or additional sheet or takes out or arranges to send out the question paper, 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. The candidate is also debarred from class work for two consecutive semesters and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	If a student uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting/threatening him/her to award pass marks	Cancellation of the performance in that subject
6.	If a student refuses to obey the orders of the Chief Superintendent / COE / any officer on duty or misbehaves or creates disturbance of any kind in	Such a student(s) shall be expelled from the examination hall along with cancellation of their performance in that subject and all other subject she



	<p>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 duty in or outside the examination hall causes injury to his person or to any other persons whether by words, either r 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 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.</p>	<p>candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate(s) will be debarred from the college and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.</p>
<p>7. If a student leaves the exam hall taking away answer script or intentionally tears/mutilates/deforms the script or any part thereof inside or outside the examination hall.</p>	<p>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. The candidate is also debarred from class work and examinations for two consecutive semesters. The continuation of the Course by the candidate is subject to the academic regulations.</p>	
<p>8. If a student is in possession of any lethal weapon or firearm in the examination hall.</p>	<p>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</p>	

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		project work and shall not be permitted for the remaining examinations of the subjects of that semester. The candidate is also debarred and forfeits the seat. Candidate will be handed over to police and, a police case will be registered against him/her.
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 subject she 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. 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.	If a student comes to the examination hall in a drunken condition	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 that semester.
11.	If copying is 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 examinations.
12.	Any other malpractice not covered in the above clauses i.e. from 1 to 11 reported to the Principal for further action/ suitable punishment.	As decided by Academic Council

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