

Academic Rules and Regulations

2020 (Revision 1.0)

(Applicable for the students admitted during 2022 – 2023 only from the upcoming semester from the date of approval)

Undergraduate Programs

Choice Based Credit System (CBCS)

NSRIT

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)
Sontyam, Andhra Pradesh 531173

(An Autonomous Institute, Affiliated to JNTU - Gurajada, Vizianagaram, AP)
Accredited by NAAC with 'A' Grade

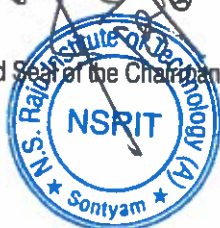


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Sign and Seal of the Chairman (ACM)



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The Vision

To promote societal empowerment and become an institution of excellence in the field of engineering education and research

The Mission

- To develop the students into outstanding professionals through innovative Teaching - Learning process
- To uphold research through long term Academia - Industry interaction
- To inculcate ethical standards and moral values



Academic Regulations for B. Tech. (Regular, Honors and Minor with Specialization) Program

(For all the candidates admitted from the Academic Year 2020 – 2021 onwards)

B. Tech. (Regular: 160 Credits | Lateral Entry: 121) | B. Tech. (Honors/Minor - Regular: 180 Credits | Lateral Entry: 141)

1. Preliminary Definitions and Nomenclature

In this regulation, unless the context otherwise requires:

- a. **Degree:** The academic award conferred upon a student on successful completion of a programme designed to achieve the defined attributes. It is referred to as Under-Graduate (UG) Degree, that is B.Tech. degree
- b. **Program:** The cohesive arrangement of courses, co-curricular and extracurricular activities to accomplish predetermined objectives leading to the awarding of a degree. It also means specialization or discipline of B.Tech.
- c. **Course:** Theory, Practical or Theory-cum-Practical subject studied in a semester, like Engineering Mathematics, Physics, etc.
- d. **"University"** means Jawaharla Nehru Technological University – Gurajada, Vizianagaram (JNTU – GV)
- e. **"Institute"** means Nadimpalli Satyanarayana Raju Insitutute of Technology (NSRIT)

2. Eligibility for Admission

- 2.1. Admission to the B. Tech. (Regular, Honors and Minor with Specialization) shall be made subject to the eligibility and qualifications as prescribed by Andhra Pradesh State Council for Higher Education (APSCHE), Government of Andhra Pradesh. The total number of seats as per the approved annual intake is categorized into two categories viz. Convenor Quota (Cat. – A) and Management Quota (Cat. – B) with a ratio of 70:30 (G. O. No. 52). The admission under Cat. – A shall be done based on the merit score secured through state-wise common state commone entrance test i.e., AP Engineering Agricultural, Pharmacy Common Entrance Test (AP – EAPCET). The allotment pertaining to Cat. – B admission, the merit list based on 10+2 shall be taken as a benchmark in compliance with the norms issued by APSCHE
- 2.2. With regard to the students admitted through Lateral Entry Scheme, the students shall be admitted directly into semester III of the second year of B. Tech. programs. Under this scheme 10% seats of the sanctioned intake will be available in each program of study as supernumerary seats. Admissions to this 3 year B. Tech. lateral entry Programme will be through Andhra Pradesh Engineering Common Eligibility Test (ECET). The maximum period to complete B. Tech. under lateral entry scheme is 6 consecutive academic years from the date of joining

3. Duration and Medium of Instruction of the Program

The program duration for the award of degree in B. Tech. (Regular, Honors and Minor with Specialization) will be of 4 academic years and each academic year will have two semesters. In case, if the student is unable to complete the program in the above said stipulated duration, he/she shall be permitted to complete the program of study within 8 consecutive academic years from the year of admission into B. Tech. program. For the students admitted through lateral entry scheme the duration



of the program is 3 years and 6 years if the student fails to complete the program of study in the stipulated duration of 3 years. The student who fails to meet the requirements for the award of B. Tech. program during the above said extended duration shall forfeit the degree in B. Tech. program of study. The medium of instruction during the program of study is English.

Academic Calendar: As already mentioned, each academic year will have two semesters. Each academic year, an academic calendar will be issued by the Office of the Controller of Examinations (CoE) indicating the duration of instruction period, Mid-Term tests, Semester-End Examinations, Practical Examinations and eventually evaluation. Normally each semester will have fifteen weeks of instruction, one week of practical examinations and two to three weeks for descriptive examinations. In total, each semester will span for a maximum duration of 15 – 19 weeks.

4. Programs of Study

NSRIT offers seven programs of four year duration leading to Bachelor's Degree in Engineering and Technology (B. Tech.) as follows

- i. Civil Engineering
- ii. Computer Science and Engineering (CSE)
- iii. Computer Science and Engineering (Artificial Intelligence and Machine Learning)
- iv. Computer Science and Engineering (Data Science)
- v. Electronics and Communication Engineering (ECE)
- vi. Electrical and Electronics Engineering (EEE)
- vii. Mechanical Engineering

5. Structure of Programs

5.1. Categorization of Courses

Each program shall have a common curriculum framework with well defined educational objectives, program outcomes and courses outcomes as per the philosophy of Outcome Based Education (OBE) in line with the Vision and Mission of the department offering the program and in turn in accordance with the Vision and Mission of the Institute. The program structure comprise of theoretical courses, practical courses, theory-cum-practical courses, MOOCs, summer and full semester internship, skill oriented courses, project work, seminars and other relevant courses meeting industry requirements. As the curriculum is framed with Choice Based Credit System (CBCS), the students have the flexibility in opting the courses of their choice under the category of electives. The courses of a particular program are categorized as follows:

- a. Foundation Courses
 - i. Humanities and Social Science including Management (HS)
 - ii. Basic Science (BS)
 - iii. Engineering Science (ES)
- b. Professional Core Courses relevant to the chosen program of study
- c. Electives
 - i. Professional Electives (PE) relevant to the chosen program of study
 - ii. Open Electives (OE) relevant to other programs of study
- d. Project, Seminar and Internship
- e. Skill Oriented Courses (SOC) and Industry Connect Courses (ICC)



f. Mandatory Courses (MC) as prescribed by AICTE / UGC

5.2. Nomenclature of Credit Distribution

No.	Nature of Course	Credit	Nomenclature
1	Theory Course / Elective Course (Per Hour)	1.0	1 Hour / Credit
2	Practical / Drawing Course (Per Hour)	0.5	0.5 Hour / Credit
3	Summer Internship (2 nd Year 3 rd Year)	1.5 3.0	-
4	Full Semester Internship	6.0	-
5	Capstone Project	6.0	-
6	Moocs (Per Hour)	1.0	1 Hour / Credit
7	Skill Advanced / Soft Skill Course (Per Hour)	2.0	0.5 Hour / Credit
8	Mandatory Course	-	-
9	Counseling/Mentoring	-	-
10	Sports/Hobby Clubs/Activities	-	-

5.3. Structure of Curriculum

Sem.	No. of Theory Courses	No. of Lab Courses, Internship, Term Paper, Project	Total Credits
I	5 Theory	3 + Sports/Hobby Clubs/Activities	19.5
II	6 (5 Theory + 1 MC)	3 + Sports/Hobby Clubs/Activities	19.5
III	7 (5 Theory + 1 SOC + 1 MC)	3 + Sports/Hobby Clubs/Activities	21.5
IV	6 (5 Theory + 1 SOC)	3 + Sports/Hobby Clubs/Activities	21.5
V	7 (3 Theory + 1 PE + 1 OE + 1 SOC + 1 MC)	2 + Sports/Hobby Clubs/Activities + Summer Internship #1	21.5
VI	7 (3 Theory + 1 PE + 1 OE + 1 SOC + 1 MC)	3 + Sports/Hobby Clubs/Activities	21.5
VII	7 (3 PE + 2 OE (MOOCs) + 1 Elective (HS) + 1 SOC)	Summer Internship #2	23
VIII	Project	Full Semester Internship	12
Total Credits			160

5.4. Credit Distribution for each Category

No.	Category	Credits	
		Regular	Lateral
1	Foundation Courses	55.5	13.5
	Humanities and Social Science including Management (HS)	10.5	06.0
	Basic Science (BS)	21.0 ¹	06.0 ¹
	Engineering Science (ES)	24.0 ¹	04.5 ¹
2	Professional Core Courses	51.0 ¹	51.0 ¹
3	Electives	27.0	27.0
	Professional Electives	15.0	15.0
	Open Electives	12.0	12.0
4	Project, Seminar and Internship	16.5	16.5
5	Skill Oriented Courses	10.0	10.0
6	Mandatory Courses as prescribed by AICTE and UGC (Not to be accounted for CGPA)	-	-
7	Audit Course	-	-
Minimum credits to be earned for the award of the B. Tech. (Regular) degree		160	121

¹The total number of credits may have marginal variation from one program to other program based on the requirement to accommodate few essential courses related to the program of study

5.5. Assessment Pattern for the Courses

With the true spirit of implementing Outcome Based Education (OBE), each course is designed with customized assessment pattern addressing the various cognitive levels of Revised Bloom's Taxonomy (RBT) with appropriate proportion covering the breadth and depth of the courses. The Assessment Instrument or QPs shall be designed with a combination of question responses with short answer, long answer, higher order thinking skills through critical thinking and creativity and MCQ that fits best to the assessment of the intended learning outcomes during the process of Continuous Internal Assessment and Semester End Examination. The course instructor can also take the liberty of setting their own customized question papers along with the distribution of marks leveraging the status of autonomous promoting higher order thinking skills and creativity through case studies or questions related to problems solving skills through open book examinations other than that of the one prescribed in the academic regulation 2023. This shall be deployed by taking necessary approval from the respective Chairman, Board of Studies and the Head of the Institution as well before the commencement of the course while preparing the course plan along with the rubrics indicating the criteria and scale/metric for assessment. With regard to the assessment pattern for the skill oriented courses, appropriate assessment instrument shall be developed by the respective course facilitator that suits to assess the skills that are expected from the courses by taking approval from the respective Chairman, Board of Studies and the Head of the Institution as well before deploying for assessment. In case of video based grading, suitable rubrics shall be developed for measuring the course outcomes or intended learning outcomes. In all the cases other than the assessment pattern being prescribed in the academic regulation 2023, the pattern of customized assessment pattern shall be submitted to the office of the Controller of Examinations before the commencement of the course.

5.6. Internship / Community Service Projects (CSP)

As per the guidelines specified in these regulations, each student is expected to undergo community service projects (CSP), internship in the form of summer and full semester internship (FSI) during the program of study and it is mandate for all the students. The curriculum offers two summer internships i.e., one at the end of second year and the other one is at the end of third year of study; each one spans for a duration of four to eight weeks. The CSP shall be taken at the level of second year as an alternate option to summer internship (Phase I) as per the standard operating procedure prescribed by the institution and the allotment is purely at the discretion of the Industry – Institute Engagement cell based on the requirement and availability of internship offers. With regard to the FSI, the curriculum provides flexibility at two different slots during VII and VIII semesters with a span of 12 weeks – 16 weeks. The students who are opting FSI either during semester VII or VIII shall register for the course during the semester V through the Head of the department and the same shall be forwarded to the Office of Controller of Examination (CoE) and Internship Cell. To ensure effective implementation of FSI, the Institute shall depute ~50% of the interns during semester VII and the rest during semester VIII. Accordingly, the courses pertaining to the semesters shall be inter-changed. The students who are opting for FSI in semester VIII shall be permitted to take up the capstone project at the industries along with the FSI in the same industry, if he/she is interested and submit a separate report along with internship/training report.

Students will be evaluated by a panel of internal and external subject matter experts (SMEs) nominated by the Office of the CoE. It is mandate for all the learners going either for internship / CSPs to capture a video demonstrating the self reflection on the learning outcomes for grading by the course supervisor/guide.

5.7. Project Work

Each student is expected to carryout one capstone project relevant to his/her program of study or interdisciplinary of nature leading to design, development of solutions, and fabrication of system component or a product. On successful completion of the project work, the students are expected to submit a detailed project report along with the working models, if any for evaluation. The office of the CoE shall nominate a team of experts to assess the quality and evaluate the project as per the evaluation guidelines prescribed in the academic regulation. Incase, if any student is interested in doing industry oriented project (Individual) at the industries or research organization, he/she shall take up the project duly approved by the Head of the Department, CoE and the Head of the Institution well before the commencement of the course. In such cases, the students should inform the respective department well in advance, preferably during semester VII. The students who opted FSI in the semester VII shall take up the courses as prescribed in the curriculum during semester VIII along with the capstone project.

5.8. Statutory Mandatory Courses and Audit Courses

Mandatory courses are those courses which are designed inline with the requirement of AICTE. These courses do not carry any credits and are not accounted for the calculation of CGPA. The students shall register for the courses in the respective semester as specified in the curriculum. All the students (regular and lateral entry students) shall complete the mandatory course by taking two assessment in the form of multiple choice questions during the continuous assessment. A minimum of 40% of marks (average of two continuous assessment) is required to complete the course and the status of completion will be indicated in the grade memo and an online certification is also mandatory for a duration of 30 hours in the relevant area as specified in the curriculum. In addition to the above, the curriculum provides flexibility to nurture employability skills through audit courses and it is mandatory for all students to complete the audit courses for the award of the degree and it will not be counted for the calculation of CGPA. The academic regulation permits autonomous learning with mandatory courses promoting self learning ability among the learners.

5.9. MOOCs and Autonomous Learning

The curriculum provides adequate flexibility for the students to take up MOOCs through self-study mode enabling them to learn the courses on independent/autonomous mode with minimal guidance of faculty mentor to earn necessary credits for the award of the degree B. Tech. (Regular) and B. Tech. (Honors & Minor with Specialization) and the attendance is not mandatory. The courses shall be opted from MOOCs platform viz. NPTEL, SWAYAM or any other platforms as approved by the respective Chairman, Board of Studies (BoS). Incase of MOOCs through NPTEL, SWAYAM, the credits shall be directly transferred without conducting any further examination from the institution. For all other platforms, the assessment pattern for such courses which are part of the curriculum for the B. Tech. (Regular) degree shall be carried out as similar to

other regular theory and skill-oriented courses. And for B. Tech. (Honors) and B. Tech. (Minor with Specialization) shall be inline with the agencies or the platforms offering these courses. Further, if the grade is not specified by the particular agency or platform, the office of CoE shall follow the institutional SOP for the award of the grade and take necessary approval from the Academic Council through circulation. MOOCs shall be identified by the respective department taking necessary approval from the BoS/Chairman (BoS) and shall be intimated well in advance to the students. Further, in case, if the student is preferred to undergo Semester Away Programme as per Clause 5.11 during semester VII, the credits earned through self-study courses shall be compensated for the calculation of CGPA. The curriculum provides flexibility to the students to select the semester VII on self-study mode to facilitate the Semester Away Program. In case of notification of On-Job Training (OJT) by the institute Industry-Institute Engagement cell during semester VI through VIII, the academic regulations 2023 provides flexibility enabling the students to opt self learning in the respective semester and can appear for continuous assessment and semester end examinations as per the examinations schedule and fulfill the credit requirement for the award of the B. Tech. program. In such cases, the attendance at the industries/research organization shall be taken for promotion from one semester to subsequent higher semesters for a duration of 15 weeks.

5.10. Industry Supported Courses

- a. Students can opt for one-credit courses, offered by experts from industry/research organizations which are approved by academic council. Students can register such courses from his/her second year of study as and when these courses are conducted by various departments. A student is also permitted to register for the courses of other departments, provided the student has fulfilled the necessary pre-requisites of the course being offered and subject to the approval of both the Heads of Departments. There is no limit to the number of 1-credit or 2-credit courses a student can register during the programme of study. However, a student can register for only one course in a semester. These courses are evaluated by the respective course coordinator of the programme. The maximum number of credits that can be earned from industry supported courses is limited to four
- b. If a student does not successfully complete the registered industry supported 1-credit or 2-credit courses in a semester, the registration of that course will be considered as cancelled. Further, it will not be treated as arrear and no supplementary examination will be conducted; alternatively, if he/she wishes, he/she can re-register for the same course in the ensuing semesters and successfully complete it as and when it is offered subsequently
- c. The credits earned through these courses will be treated over and above the credit requirement for the award of the B. Tech. (Regular, Honors and Minor with Specialization) programs
- d. The students who are opting Industry Connect Courses (ICC), as per the list furnished in the respective curriculum, the credits earned through ICC can be trade off to the courses in the curriculum other than the category of Basic Sciences, Engineering Sciences and Professional Core for the award of B. Tech. (Regular) Degree. Further, the credits earned through ICC cannot be compensated for the courses of B. Tech. (Honors) and B. Tech. (Minor with Specialization)



5.11. Semester Away Programme (SAP) to Promote Multi-Disciplinary Skills (Choice Based Semester System): The interested students can have the option of undergoing Semester Away Programme leveraging Choice Based Semester System during semester VII with Higher Learning Institutions at Foreign Countries or Institutions of National Repute or Research Organizations in India, by earning necessary equivalent credits in the semester VII through course study, projects or whatever terms and conditions as prescribed by the respective organization. In addition to the above, the students can opt a combination of 1-, 2-, 3-, 4-credit courses to compensate the credits required for semester VII on self study mode in case of shortage of credits. The students who are interested to opt for SAP shall register to the office of CoE during the beginning of semester III and initiate self-study mode for futuristic compensation of credits. The registration for this SAP is valid as long as the students maintain 8.0 CGPA in all semesters with no history of arrears. Incase, if the student fails to register during the above said period, he/she may register for the same by taking prior permission from the respective Head of the Department. Further, the students are encouraged to opt inter-disciplinary courses of their interest (need not be in the area of the program of study). The Controller of Examinations shall ensure that necessary approvals are taken from the Academic Council well before the time period of their SAP. In case of any uncertain circumstances, if the student fails to complete SAP, the registration will be cancelled automatically and he/she can earn the credits required for that particular semester through self-study mode.

5.12. Procedure for Awarding Marks for Continuous Assessment

Theory (Internal: 30 Marks | External 70 Marks)

Continuous Internal Assessment #1 (First two and half units with a duration of 90 Minutes)

Descriptive Examination : 20 Marks

Assignment : 05 Marks

Continuous Internal Assessment #2 (Next two and half units with a duration of 90 Minutes)

Descriptive Examination : 20 Marks

Assignment : 05 Marks

Comprehensive Quiz (50 Multiple Choice Questions each carries 01 mark and scaled down to 05 Marks)

The final internal marks will be awarded by considering equal proportion for both the CIA which shall be scaled down to 25 marks and 05 marks from comprehensive quiz.

Laboratory Courses (Internal: 30 Marks | External: 70)

Total Internal Marks : 30 Marks

Distribution for Continuous Evaluation

Continuous Assessment : 10 Marks

Record : 10 Marks

Internal Test : 10 Marks

Total External Marks : 70 Marks

Experiment & Viva - Voce : 50 Marks
Video Assessment (Learning Outcomes) : 20 Marks (One video shall be uploaded by the student demonstrating the self reflection on that particular laboratory course for grading)

Drawing and Design Related Courses (Internal: 30 Marks | External: 70 Marks)

Total Internal Marks : 30 Marks
Distribution for Continuous Evaluation
Continuous Assessment : 15 Marks
Internal Test : 15 Marks
Total External Marks : 70 Marks

There shall be two internal tests in a semester for 15 marks each and final marks will be calculated by considering equal proportion for both the CIA.

Mandatory Courses

Assessment : As prescribed in the Academic Regulation
Online certification course : 01 course (in the relevant area of the pursuing mandatory course with a minimum duration of 30 hours and the students need to submit the certification of completion and assessment compliance issued by the respective online learning platforms)

Technical Paper Writing

Internal Review #1 : 10 Marks
Internal Review #2 : 10 Marks
Final Review and Presentation : 30 Marks

Paper Publications: Students are requested to publish their review articles to either peer-reviewed journals or any one of the reputed conferences and submit the published paper. It is mandatory for the award of the degree. Academic regulation suggest to publish the articles either in UGC – CARE or journals indexed by SCOPUS.

Summer Internship (Internal: 50 Marks)

Interim Assessment and Report Writing : 20 Marks
Final Presentation : 30 Marks

Full Summer Internship (Internal: 100 Marks | External: 100 Marks)

Interim Review #1 (Industry Supervisor) : 20 Marks (Rubrics based)
Interim Review #2 (Industry Supervisor) : 30 Marks (Rubrics based)
Terminal Presentation : 15 Marks (Presentation)
Report : 25 Marks
Video Based Assessment : 10 Marks

In all the continuous assessment pertaining to internship, the major focus of the assessment will be predominantly on skills and application of knowledge viz. Communication Skills, Team-Work, Organization Skills, Interpersonal Skills, Analytical and Problem Solving Skills, Leadership Skills, Work Ethics and any specific initiatives by the interns.



Skill Oriented Courses (Internal: 50 Marks)

Interim Assessment and Report Writing	:15 Marks
Outcomes	: 20 Marks
Final Presentation	:10 Marks
Video Based Assessment	: 05 Marks

The outcomes shall be in the form of design, development of working model of a system component or a product and these 20 marks shall be awarded based on Rubrics that addresses Critical Thinking, Creativity, Collaboration and Communication.

Project (Internal: 100 Marks | External: 100 Marks)

Distribution of Marks (Continuous Internal Assessment)

Innovativeness of the Project	: 10 Marks
Literature Survey	: 05 Marks
Experimentation/ Simulation	: 15 Marks
Presentation, Interpretation & Analysis of Results	: 15 Marks
Interim Review #1(Presentation)	: 05 Marks
Interim Review #2 (Presentation)	: 05 Marks
Product Development	: 15 Marks
Terminal Presentation	: 10 Marks
Report	: 05 Marks
Publication in Conference / Journal (CARE)	: 05 Marks
Video Based Assessment	: 05 Marks (Mandatory)
Online Certification	: 05 Marks (Mandatory)

The online certification shall be from MOOCs platform with a minimum duration of 30 – 45 hours and the student need to earn the certification and for which there will not be any further assessment from the institution or program of study.

A student shall earn the following percentage of minimum percentage of marks in each theory, practical, design and drawing course in B. Tech. program.

- A minimum of 35% (24 and above out of 70 marks) of marks for each course Semester End Examinations (SEE) and
- A minimum of 40% marks for each course considering both CIA and SEE taken together

6. Attendance Finalization and Result Declaration

6.1. Procedure

The attendance shall be calculated as per this autonomous regulation 2020 for the students to appear for the end semester examinations as per clause 6.2. The Institute shall formulate a committee "Joint Board" constituting of Principal (Chairman), Chairpersons of all Boards of Studies, Controller of Examinations (Member Secretary) and two senior members of faculty. The tenure for the senior members of faculty shall be of 2 years. The member secretary shall place the attendance of all the students before the Joint Board for approval before the finalization and

declaration of attendance. The same procedure shall be adopted for declaring the end semester examination results.

6.2. Attendance Requirements and Result Declaration Procedure

- a. A student shall be eligible to appear for the end semester examinations if he/she acquires a minimum of 75% of attendance in aggregate of all the courses in a semester and shortage of attendance below 65% shall in no case be condoned and such cases will not be permitted to appear for the end semester examinations
- b. Condonation for shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester shall be permitted based on medical leave (hospitalization / accident / specific illness) and on-duty leave for participation in College / University / State / National / International Sports events with prior approval from the competent authority. After taking necessary approval from the Head of the Institution or Competent Authority, the student shall be permitted to appear for the end-semester examination by paying the condonation fee as prescribed by the Office of CoE. However, the student who have represented the college in outside world activities shall be exempted in paying the condonation fee
- c. A student who has secured less than 40% of attendance in a particular course shall not be permitted to appear for the end semester examination though he/she maintains more than 75% of attendance in aggregate of all courses in that particular semester. In such cases, the student need to reappear physically as and when the courses are being offered by the respective department and accordingly the time-table shall be optimized to avoid overlapping
- d. Students, who do not meet the minimum required attendance in a semester, shall be detained in that particular semester and they will not be promoted to the next semester. In such cases, the student need to rejoin in that particular semester in the subsequent academic year
- e. Academic regulations applicable to the semester in which re-admission is sought shall be applicable to the re-admitted student
- f. In case if there are any professional electives and/or open electives, the same may also be re-registered if offered by the respective program of study. However, if those electives are not offered in the later semesters, alternatively, the students may opt other electives from the same set of elective courses offered under that category in that particular semester

7. Promotion Policies

During the four year (Regular) or three year (Lateral) program of study, it is mandatory for all students to maintain a minimum of 40% of the credits pertaining to the current year of study to get promoted to subsequent year of study, say 2nd year to 3rd year and so on. In case if the student fails to earn the necessary percentage of credits required for promoting to subsequent year of the program of study, he/she will be detained and he/she need to earn the required credits and take re-admission in the subsequent years of the academic year to complete the B. Tech. degree program.

8. Eligibility for the Award of the Degree

A student shall be declared to eligible for the award of the degree in B. Tech. (Regular) program if he/she has fulfilled the following requirements

- a. The student should earn the minimum requirement of credits (160 for regular admission and 121



credits for lateral entry) and cleared all the mandatory courses as prescribed in the curriculum within the maximum duration of 8 consecutive academic years (Regular) and 6 consecutive academic years (Lateral) from date of admission

- b. The student should maintain more than 5 CGPA at any point of time
- c. The student shall not have any pending disciplinary issues

The student shall forfeit his/her Degree and his/her admission stands cancelled if he/she fails to meet the above compliance.

9. Award of Grades

Range of Marks	Letter Grade	Grade Point
≥ 90	'O'	10
$\geq 80 < 90$	'A+'	09
$\geq 70 < 80$	'A'	08
$\geq 60 < 70$	'B+'	07
$\geq 50 < 60$	'B'	06
$\geq 40 < 50$	'C'	05
< 40	'F'	0
Absent	'AA'	0
Non completion of a semester (Repeat)	'I'	0
Withdrawal from end semester examination	'W'	0

After completion of the programme, the Cumulative Grade Point Average (CGPA) from the I Semester to VIII Semester (from III to VIII semester for lateral entry) is calculated using the formula:

$$CGPA = \frac{\sum_{i=1}^{n-1} (c_i \times g_i)}{\sum_{i=1}^{n-1} c_i}$$

where 'n' is the number of courses registered for, 'c_i' is the credits allotted to the given course and 'g_i' is the grade point secured in the corresponding course

10. Classification of the Degree Awarded

- a. **B. Tech. (Honors):** In addition to the requirement as cited in (10.c), if the student secures 20 additional credits in accordance with the clause (14), he/she shall be declared with B. Tech. (Honors)
- b. **B. Tech. (Minor with Specialization):** In addition to the requirement as cited in (10.c), if the student secures 20 additional credits in accordance with the clause (15), he/she shall be declared with B. Tech. (Minor with Specialization)
- c. **B. Tech. (Regular) - First Class with Distinction:** The student who qualifies for the award of the B. Tech. degree in the chosen program of study with 160 credits (Regular) and 121 credits (Lateral) within 5 consecutive academic years (Considering the formal approval for the break of study from the competent authority) from the date of admission at his/her first attempt maintaining 7.5 CGPA and above shall be declared to have passed in first class with distinction and should not have been prevented from appearing end semester examinations for the want of attendance requirements

- d. **B. Tech. (Regular) - First Class:** The student who qualifies for the award of the B. Tech. degree in the chosen program of study with 160 credits (Regular) and 121 credits (Lateral) within 4 consecutive academic years from the date of admission maintaining 6.75 CGPA and above shall be declared to have passed in first class and should not have been prevented from appearing end semester examinations for the want of attendance requirements
- e. **B. Tech. (Regular) - Second Class:** The student who qualifies for the award of the B. Tech. degree in the chosen program of study with 160 credits (Regular) and 121 credits (Lateral) within 8 consecutive academic years from the date of admission maintaining 5.75 CGPA and above and less than 6.75 CGPA shall be declared to have passed in second class
- f. **B. Tech. (Regular) - Pass:** All other students who have not covered and qualifies for the award of the degree maintaining 5.00 CGPA and above and less than 5.75 CGPA shall be declared to get Pass with minimum credit requirement for the award of the degree in B. Tech. program

11. Flexibility to Add or Drop Self Study Courses (SSC)

- a. It is mandatory that all the students need to earn the minimum number of the credits for the award of B. Tech. degree in their respective program of study. However, a student can earn more number of credits if he/she opt, by registering additional courses, from the list of courses available in the curriculum of all disciplines, over and above to the existing courses from semester IV – VI. The student shall be permitted to drop any SSC at any point of time and registration for such courses gets cancelled and will not be reflected in Cumulative Grade Memo (CGM)
- b. All the courses registered and cleared by a student in this mode will be mentioned in the CGM as additional acquired. However, the CGPA is calculated as per the minimum requirement of the credits for the award of the B. Tech. degree

12. Withdrawal from the Examination

- a. A candidate may, for valid reasons, be granted permission by the Principal to withdraw from appearing for the examination in any course or courses of only one semester examination during the entire duration of the Degree Programme. Also, only ONE application for withdrawal is permitted for that semester examination in which withdrawal is sought
- b. Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination and if it is made prior to the commencement of the examination in that course or courses and also recommended by the Head of the Department
- c. Such withdrawal from the examination shall be treated as absent for the 1st attempt to the respective examination and will lose the eligibility for First Class with Distinction
- d. If any student is intended to drop FSI subsequent to his/her registration followed by allotment, he/she needs to re-register the course

13. Transitory Regulations: To enable the students to take admission or entry into NSRIT from other Institution either by Transfer, Re-admission, Admission, or Transfer from other engineering Institution affiliated to JNTUK/Academic regulation within the Institute, the following regulations shall be followed based on the nature of case as cited above.

- Transfer of candidate from Autonomous / Non-Autonomous Institution affiliated to JNTUK
- Within the Institution from one regulation to other academic regulation



a. Transfer of a candidate from Autonomous / Non-Autonomous Institution affiliated to JNTUK

Any candidate who is interested to take admission in NSRIT from a non-autonomous engineering institution affiliated to the parent university either in the semester III or thereafter, shall acquire the credits required for graduation as per the Institute autonomous regulations and the candidature shall be treated under following category

Students from non-autonomous institution seeking admission into semester III shall be treated in par with the students taking admission for 3 year program of study (i.e. lateral entry students) and should have cleared all the courses in the semester I and II as per university regulation. The same shall be calculated as per NSRIT regulations if the student is seeking admission into NSRIT from an autonomous institution. The credits earned during semester I and II shall be calculated as per the Institute autonomous regulations and in case if the earned credits during first two semesters are not adequate to take admission in the semester III, the student shall take additional courses approved by the respective Board of Studies and Academic council during semester III at NSRIT on self study mode and the same procedure shall be followed for taking admission into higher semesters

b. Within the Institution from one regulation to other academic regulation

A student taking admission under one regulation, say Academic Regulation 2020 in the first year, shall continue with the same regulation and should earn the necessary credits as mentioned in the academic regulation at the time of joining. However, in case of readmission into a subsequent new regulation, and if the readmission is into any of the semesters from semester I through IV, the student shall follow the current regulations to which he/she taking admission and continue with the same regulation till graduation. In case of any credit shortage, the necessary credits shall be earned on self study mode to compensate the required number of credits. In case of excess credits, it will be treated as over and above.

In both the cases (a) and (b), the details shall be forwarded to the parent university along with the proceedings of the Academic Council.

- 14. B.Tech. (Honors):** The curriculum provides flexibility to enable the students to register for B.Tech. (Honors) program by earning additional 20 credits which is over and above the requirement for the award of B.Tech.(Regular) degree. He/She shall register in the office of the CoE during semester III provided he/she secures ≥ 8 CGPA without backlogs in earlier semesters. If he/she wishes to withdraw from B.Tech. (Honors) program at any point of time, the credits obtained will not be compensated for the award of the degree and considered as over and above. The maximum enrollment B. Tech. (Honors) shall be restricted to 10% of the total intake in a particular batch of students.

The additional 20 credits shall be earned by opting four 4-credit courses offered by the respective program of study which are categorized in the curriculum and these courses shall be offered with a combination of guided learning or taught courses or self study mode depending on the total number of students registered for that particular course and the Chairperson of the Board of Studies reserves the right to decide the mode of delivery. Apart from this, he/she shall choose two 2-credit MOOCs of 30 hours or 6 weeks duration. Above all, if any student fails to maintain the 8 SGPA in the subsequent semesters after semester III, the registration for the B. Tech. (Honors) program stands cancelled

without any notification. In case of students admitted through lateral entry, the CGPA compliance will be considered from semester III onwards as already mentioned.

15. **B.Tech. (Minor with Specialization):** The curriculum provides flexibility to enable the students to register for B. Tech. (Minor with Specialization) program by earning additional 20 credits which is over and above the requirement for the award of B. Tech. (Regular) degree. He/She shall register in the office of the CoE during the semester III provided he/she secures ≥ 8 CGPA without backlogs in earlier semesters. If he/she wishes to withdraw from B. Tech. (Minor with Specialization) program at any point of time, the credits obtained will not be compensated for the award of the degree and considered as over and above. Above all, if any student fails to maintain the 8 SGPA in the subsequent semesters after semester III, the registration for the B. Tech. (Minor with Specialization) program stands cancelled without any notification. In case of students admitted through lateral entry, the CGPA compliance will be considered from semester III onwards as already mentioned.

The student shall opt three inter-disciplinary courses each of 3-credit as listed in the curriculum offered by other programs and one 3-credit MOOCs of 30 hours or 6 weeks duration in addition to a project of 8-credit leading to design, process development, system component design & fabrication and application development relevant to the chosen field of interest prescribed in the curriculum.

16. **Academic Bank of Credits:** This academic regulation 2023 provides complete scope of academic flexibility in accordance with The Gazette of India, the notification issued by UGC pertaining to the Academic Bank of Credits (ABC) vide File No. 14-31/2018 (CPP – II) dated 28th July, 2021, New Delhi. The ABC provides a full length academic flexibility while removing rigid curriculum boundaries and creating new possibilities of life-long learning.

Incase with students registering under ABC, it is very much mandate and recommended to complete the courses pertaining to professional core and the courses at the lower semesters, especially, the courses pertaining to Mathematics, Physics, Chemistry and few related to Engineering Sciences.

17. **Temporary Break of Study from the Program:** The curriculum provides flexibility for the students having ≥ 9 CGPA to take a break of one year at any time after the end of I/II/III year of study to pursue entrepreneurship on full time. This period of gap shall be counted for the maximum time of graduation. A committee approved by the Academic Council shall be constituted to evaluate the proposal submitted by the student and the committee shall decide on permitting the student for availing the break of study.

18. **Revision of the Academic Regulations and Curriculum**

The Joint Board Committee and the Academic Council of the institute reserve the right to revise, change or amend the regulations, the scheme of examinations, the curriculum and the syllabi from time to time if found necessary.

19. **Representation of Special Cases**

In case of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Joint Board Committee through the Head of the Institution. The Joint Board Committee will offer suitable interpretations/ clarifications /amendments required for special case on such references and get them ratified in the next meeting of the Academic Council. The decision of the Academic Council is final.

20. Curriculum and Syllabi of various Programs of Study (Scan to view the Program Curriculum and Syllabi)

