



NANDHA

ENGINEERING COLLEGE (Autonomous)

Erode - 638 052

(Affiliated to Anna University, Chennai, Approved by AICTE, New Delhi, Accredited by NAAC (A+ Grade))

R2022

REGULATIONS Amendments - 2

(Applicable to the batch of students admitted from the
academic year 2022-2023 onwards)

Common to all B.E. / B.Tech. Full-Time Programmes

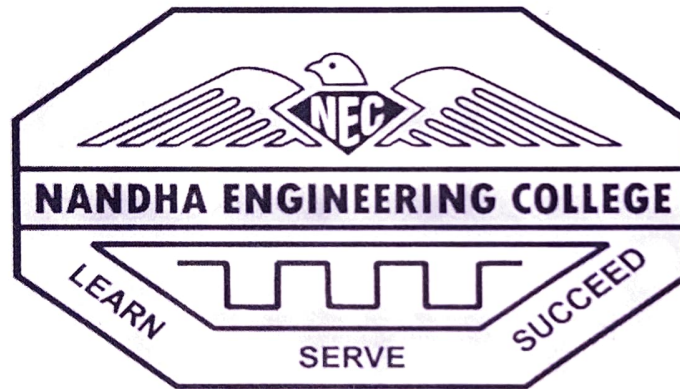


NANDHA ENGINEERING COLLEGE

(AUTONOMOUS)

(Affiliated to Anna University, Chennai and Approved by AICTE, New Delhi)
(Accredited by NAAC (A+ Grade))

Erode-638 052, Tamil Nadu, India, Phone: 04294 – 225585



Amendments [2] in RULES AND REGULATIONS – 2022 [R22] for UG Programmes

[Applicable to the batch 2022-26 (regular) and
2023-26 (lateral entry students)]




Dr. U.S. Ragupathy
Principal
Nandha Engineering College
(Autonomous)
Erode - 638 052, Tamil Nadu

AMENDMENTS IN RULES AND REGULATIONS [Amendments R22]

FOR B.E./ B.TECH. DEGREE PROGRAMME

EXISTING	REVISED
<p>5.0 STRUCTURE OF PROGRAMMES</p> <p>Clause 5.2 Categorization of Courses</p> <p>(e). Professional Elective Courses (PEC): include the elective courses relevant to the chosen specialization/branch.</p> <p>(h). Mandatory courses (MC) includes Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Traditional Knowledge.</p>	<p>5.0 STRUCTURE OF PROGRAMMES</p> <p>Clause 5.2 Categorization of Courses</p> <p>(e). Professional Elective Courses (PEC): Include the elective courses relevant to the chosen specialization/branch. Professional elective courses should be selected from verticals (specialization groups)</p> <p>(h). Mandatory courses (MC) includes Environmental Sciences, Induction Programme, Indian Constitution, Essence of Indian Traditional Knowledge. For the students who complete the Mandatory course satisfying attendance requirement, the title of the Mandatory course will be mentioned in the Grade Sheet. List of students who have successfully completed the Induction Programme shall be certified by the Head of the department and the completion of the induction Programme shall be printed in the Grade sheet a “Completed”. In the case of students who have got admitted later and not attended the Induction Programme at the time of joining the degree Programme, it shall be conducted later and on completion, it shall be recorded in the grade sheet.</p>
<p>Clause 5.3 Personality and Character Development:</p> <p>All students shall enroll, on admission, in any one of the personality and character development programmes NCC/NSS/NSO/YRC and undergo training / conduct activities for about 80 hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. Alternately, activities of science, literature and arts also help for personality and character development. So, students shall conduct and participate actively in Science club/Literary Forum/Fine Arts activities for 80 hours and participate in at least ONE event.</p>	<p>Clause 5.3 Personality and Character Development:</p> <p>All students shall enroll, on admission, in any one of the personality and character development programmes NCC/NSS/NSO/YRC and undergo training / conduct activities for about 56 hours (regular students) and 28 hours (lateral students). The training shall include classes on hygiene and health awareness and also training in first-aid. Alternately, activities of science, literature and arts also help for personality and character development. So, students shall conduct and participate actively in Science club/Literary Forum/Fine Arts activities for specified hours</p>

<ul style="list-style-type: none"> • National Cadet Corps (NCC) will have about 20 parades. • National Service Scheme (NSS) will have social service activities in and around the College / Institution. • National Sports Organization (NSO) will have Sports, Games, Drills and Physical exercises. • Youth Red Cross (YRC) will have activities related to social services in and around College/Institution. <p>While the training activities will normally be during weekends, the camp will normally be during vacation period.</p> <ul style="list-style-type: none"> • Science club shall organise activities of popularisation of science and scientific temper through activities related to astronomy, works of great scientists from India and abroad, observing National Science Day, etc. • Literary Club like ‘Tamil Ilakkiya Mandram’ shall be formed, which shall organise colourful literary events to propagate good humanist values, morals and ethics reflected in the literature. • Fine Arts Club like music, painting and documentary films with social themes shall be encouraged. <p>Students who enroll and take active participation in anyone of the above activities for 80 hours and participate at least one event/programme will be given a certificate by the Head of the Institution and the copy of the same shall be forwarded to the Controller of Examinations for the purpose of record and scrutiny.</p> <p>No fee shall be charged for all these activities.</p>	<p>and participate in at least ONE event.</p> <ul style="list-style-type: none"> • National Cadet Corps (NCC) will have about 20 parades. • National Service Scheme (NSS) will have social service activities in and around the College / Institution. • National Sports Organization (NSO) will have Sports, Games, Drills and Physical exercises. • Youth Red Cross (YRC) will have activities related to social services in and around College/Institution. <p>While the training activities will normally be during weekends, the camp will normally be during vacation period.</p> <ul style="list-style-type: none"> • Science club shall organise activities of popularisation of science and scientific temper through activities related to astronomy, works of great scientists from India and abroad, observing National Science Day, etc. • Literary Club like ‘Tamil Ilakkiya Mandram’ shall be formed, which shall organise colourful literary events to propagate good humanist values, morals and ethics reflected in the literature. • Fine Arts Club like music, painting and documentary films with social themes shall be encouraged. <p>Students who enroll and take active participation in anyone of the above activities for 56 hours (regular students) and 28 hours (lateral students) and participate at least one event/programme will be given a certificate by the Head of the Institution and the copy of the same shall be forwarded to the Controller of Examinations for the purpose of record and scrutiny.</p> <p>No fee shall be charged for all these activities.</p>
<p>5.7 Industrial Training/ Internship:</p> <p>The students may undergo Industrial training for a period as specified in the Curriculum during summer / winter vacation. In this case the training has to be undergone continuously for the entire period.</p>	<p>5.7 Industrial Training/ Internship:</p> <p>The students may undergo Industrial training for a period as specified in the Curriculum during summer / winter vacation. The student is also permitted to undergo a semester long internship in an industry/ academic/research institution.</p>

5.9 Value Added Courses (VAC):

The students may optionally undergo Value Added Courses (VAC) over and above the topics covered in the curriculum to obtain practical and industry specific knowledge. Every student is required to undertake at least two certification courses as a part of VAC. Students can opt for any one of the VAC offered by the various departments starting from the second year of the Programme. The credits earned through the Value Added Courses shall be over and above the total credit requirements prescribed in the curriculum for the award of the degree.

5.9 Value Added Courses

The value added course shall carry 100 marks and shall be evaluated through continuous assessments only. Two assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall do the evaluation process. The list of students along with the marks and the grades earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations. The grades earned by the students for Value Added Courses will be recorded in the Grade Sheet, however the same shall not be considered for the computation of CGPA.

5.10 Online Courses:

Students may be permitted to register and credit for the online courses (which are provided with certificate) offered by SWAYAM/NPTEL/reputed institutions like IITs, NITs, NASCOM with the approval of the Head of the Institution. Head of the Institution shall form a committee to ensure that the student has not studied such courses and would not repeat it again as Professional Core/Professional Elective/Open Elective courses.

5.10 (a) Online Courses:

Students may be permitted to register and credit for the online courses (which are provided with certificate) offered by SWAYAM/NPTEL/reputed institutions like IITs, NITs, NASCOM with the approval of the Head of the Institution. Head of the Institution shall form a committee to ensure that the student has not studied such courses and would not repeat it again as Professional Core/Professional Elective/Open Elective courses.

5.10 (b) Off-campus courses and transfer of credits:

5.10 (b)(1) Students are permitted to optionally enroll and study the courses in physical / hybrid / online modes offered by reputed Central / State funded Universities / Institutions which are in the top 20 positions in the latest NIRF ranking and also conducting examination towards award of marks and grades. (NIRF Ranking of any of the last three years with respect to the year in which course is to be registered; NIRF ranking is based on respective

stream for professional elective courses and based on any stream for open elective courses).

5.10 (b)(2) Students are also permitted to enroll and undergo such courses in online mode at Universities abroad in top 500 in QS ranking in the last three years.

5.10 (b)(3) Students are also permitted to study courses of a particular semester in a University Institution abroad based on MoU. A learning agreement shall be evolved to map all the courses offered in the programme and the courses offered in University abroad as per the procedure outlined by the Institute. The credits earned by the students in the University abroad shall be transferred as per the learning agreement. In the case of 5.10 (b)(1), the students can enroll for the courses with the approval of the Head of the institution only if the course is offered directly by Institution/University and not with the edutech platforms.

The marks/credits earned by the student shall be transferred based on the decision of a committee constituted by the Principal and approved by the institution.

5.10 (b)(3) Students are also permitted to enroll and study the courses in physical/hybrid mode (not less than 50% in physical mode) that are offered by

(i) National/State funded research institutions/laboratories

(ii) (a) reputed companies (manufacturing or software) related to the programme, and

(b) reputed companies involved in transfer of knowledge provided the knowledge transferring company is a spinoff from an Engineering/Technology practicing Industry and sharing the work experience of the

	<p>respective industry.</p> <p>The companies mentioned in 5.10 (b)(3) (ii)(a) and the company with which the knowledge transfer company associated in the case of 5.10 (b)(3)(ii)(b) should have average annual turnover of more than 200 crores over a period of 5 years. However, the academic content and delivery shall be in consonance with the institution.</p> <p>The minimum qualification of the course instructor from the company as mentioned in 5.10 (b)(3)(ii) shall be B.E/B.Tech with 10 years of research / industrial experience. Such courses shall be offered through MOU/ MOA between the institution and such institutions/organizations/companies. The design of the courses with regard to the syllabus content, duration of each course and number of credits offered for each course shall be discussed, recommended and approved by the Board of Studies as per the Regulations.</p> <p>For the offer of each course under 5.10 (b)3, a course coordinator shall be nominated from the Department who shall also attend such course and shall coordinate the question paper setting and answer script evaluation with the course instructor.</p>
<p>5.14 Project Work:</p> <p>Every student shall be required to undertake a suitable project in industry / research organization / department in consultation with the Head of the Department and the faculty guide and submit the project report thereon at the end of the semester in which the student is registered, on dates announced by the College/Department. A student shall register for the final Project Work as specified in the curriculum (only after 7th semester of his/her studies).</p>	<p>5.14 Project Work:</p> <p>Every student shall be required to undertake a suitable project in industry / research organization / department in consultation with the Head of the Department and the faculty guide and submit the project report thereon at the end of the semester in which the student is registered, on dates announced by the College/Department. A student shall register for the final Project Work as specified in the curriculum (only after 7th semester of his/her studies).</p> <p>The last date for submission of the project report is on the last working day of the semester. If a student fails to submit the project</p>

	<p>report on or before the specified deadline, it will be considered as fail in the Project Work and the student shall re-register for the same in the subsequent semester.</p>
<p>7.2 COURSE REGISTRATION FOR ODD AND EVEN SEMESTER</p> <ul style="list-style-type: none"> • The enrollment for all the courses of the succeeding semester will commence 10 working days prior to the last working day of current Semester. However, the student shall confirm the enrollment by registering for the courses within the first five working days after the commencement of the concerned semester and complete the registration process duly authorized by the Head of the Department. The registration details of the candidates may be approved by the Head of the Institution and forwarded to the Controller of Examinations. • After registering for a course, a student shall attend the classes, satisfy the attendance requirements as per clause-8.1, earn Continuous Assessment marks and appear for the End Semester Examinations. • A department shall offer a course only if a minimum number of students register for that course. This minimum number may vary from course to course and shall be specified by the department from time to time. 	<p>7.2 COURSE REGISTRATION FOR ODD AND EVEN SEMESTER</p> <p>a) The enrollment for all the courses of the succeeding semester will commence 10 working days prior to the last working day of current Semester. However, the student shall confirm the enrollment by registering for the courses within the first five working days after the commencement of the concerned semester and complete the registration process duly authorized by the Head of the Department. The registration details of the candidates may be approved by the Head of the Institution and forwarded to the Controller of Examinations.</p> <p>b) After registering for a course, a student shall attend the classes, satisfy the attendance requirements as per clause-8.1, earn Continuous Assessment marks and appear for the End Semester Examinations.</p> <p>c) A department shall offer a course only if a minimum number of students register for that course. This minimum number may vary from course to course and shall be specified by the department from time to time.</p> <p>d) Choice of Professional Elective Courses (new clause): The minimum number is not applicable for students enrolling B.E./ B. Tech. (Hons) and B.E. / B. Tech. Minor. For the offer of each professional elective atleast two choices shall be offered.</p>

<p>Clause 10.1 PROCEDURE FOR ASSESSMENT & AWARDING MARKS</p> <p>Project Work (Marks: 100) [Mini project/ Design project/ Project Work -1 / Project Work -2]] Project work will be evaluated by continuous assessment (40) and end semester assessment (60).</p>			<p>Clause 10.1 PROCEDURE FOR ASSESSMENT & AWARDING MARKS</p> <p>Project Work (Marks: 100) [Mini project/ Design project/ Project Work -1 / Project Work -2]] Project work will be evaluated by continuous assessment (60) and end semester assessment (40).</p>		
Continuous Assessment- 40			Continuous Assessment- 60		
	Marks			Marks	
Review-1	10		Review-1	20	
Review-2	15		Review-2	20	
Review-3	15		Review-3	20	
	40			60	
End Semester Assessment - 60			End Semester Assessment - 40		
Project Report	Internal Examiner	10	Project Report	Examiner	10
	External Examiner	10			
Viva Voce	Internal Examiner	10	Viva Voce	Internal Examiner	10
	External Examiner	20		External Examiner	10
	Supervisor Examiner	10		Supervisor Examiner	10
	60			40	
			<p>In case of industrial projects, the marks allotted for supervisor will be shared equally by the supervisor from the Department and coordinator from industry.</p>		
			<p>The Head of the Department shall constitute a review committee for Project Work. The review committee consists of supervisor, an expert from the Department and a senior faculty member / project coordinator from the Department. If the project coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated.</p> <p>The Project Work carried out in industry/ academic/research institution shall be jointly supervised. The Project Work shall be jointly supervised by a supervisor of the department and an expert from the organization as a joint supervisor and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating</p>		

	<p>the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.</p> <p>In the case of Industrial Project / Internship, the review committee shall consist of the supervisor, the coordinator from industry and the project coordinator from the Department.</p> <p>The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by the committee constituted by IQAC . Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks awarded to each student of the project group is based on the individual performance in the viva-voce examination.</p> <p>Students shall also undertake a start-up activity for the development of products as part of project work. If the outcome of a start-up is a fully developed product and whose concept is tested and validated, then it shall be considered in lieu of the project work. Such students shall submit a start up report, which includes the concepts and process flow of the developed product, publications and patents, if any.</p>
<p><u>Resubmission of project:</u> If a student could not submit thesis in time/could not attend viva-voce exam/could not complete the industry project as per the specification of industry/fail to clear the project due to unforeseen circumstances, he/she is permitted to resubmit his work within 30 days after the publication of the results. Evaluation and passing requirements remain same as like regular project work course. Such resubmission of project work shall not be construed as an appearance for the eligibility of the student for the classification of the degree.</p>	<p>If a student has submitted the project report but absent in the end semester examination of project work, the student is deemed to be failed. In this case and also if a student attends and fails in the End semester examination of Project work of B.E. / B.Tech, he/she shall attend end semester examination again within 60 days from the date of declaration of the results. The subsequent viva-voce examination will not be considered as reappearance. In case, the student fails in the subsequent viva-voce examination also, the student shall redo the course again, when offered next.</p>

Clause 10.5 Assessment for Online Course:

Students may be permitted to register for online courses (which are provided with certificate) as specified in clause 5.10. *On successful completion of the online courses, DAB will assess the online courses by providing 60% weightage to the marks earned through online courses and 40% weightage to the assessment by DAB by retaining the credits specified in the certification. Online course of 3 credits can be considered instead of one elective course (PEC/OEC). The grading shall be awarded as per clause 16.1 with the prior approval of Principal.*

Students may be permitted to register for online courses (which are provided with certificate) as specified in clause 5.10. On successful completion of the online courses, the final marks will be calculated by multiplying the marks earned through online course with a factor of 1.25 as per recommendations of DAB committee. Online course of 3 credits can be considered instead of one elective course (PSE/OE). The grading shall be awarded as per clause 16.1 with the prior approval of Principal.

(Approved in 11th Academic Council - with effect from April-May 2024 onwards).

Clause 10.5 Assessment for Online Course:

Students are permitted to optionally enroll and study online courses through SWAYAM - NPTEL platforms and credit transfer is to be done based on the marks and certificate provided by the NPTEL. The number of credits and transfer of credits are based on the procedure explained in Table-1 and the Mapping of the marks with the grades is explained in Table-2. Online course of 3 credits can be considered instead of one elective course (PEC/OEC). The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL

Table-1: Duration and Number of credits

Number of weeks	Number of credits
4	1
8	2
12	3
16	4

Table 2: Mapping of Marks scored in NPTEL course and Credits earned

Letter Grade	Marks
O	90 -100
A+	80 - 89
A	70 - 79
B+	60 - 69
B	50 - 59
C	40 - 49

PROVISION FOR WITHDRAWAL FROM END SEMESTER EXAMINATION

PROVISION FOR WITHDRAWAL FROM END SEMESTER EXAMINATION

Clause 13.5 (new clause): If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only if the student has submitted the project report before the deadline. However, the student may appear for the viva-voce examination within 60 days after the declaration of results for Project Work and the same shall not be considered as reappearance.

Clause 16 Award of Grade

16.1 After a student has satisfied the passing requirements prescribed in clause 11, the student shall be placed in one of the grades. All assessments of a course will be done on relative grading principle. Credits/grade/marks earned through online courses as per Clause 5.10 & 10.5 may be transferred after normalizing it with the marks/grades of institution specified in Clause 16.1. However, for the purpose of reporting the performance of a student, letter grades, each carrying certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the student in each subject as detailed below:

Clause 16 Award of Grade

16.1 After a student has satisfied the passing requirements prescribed in clause 11, the student shall be placed in one of the grades. All assessments of a course will be done on relative grading principle except for the categories referred in Clause 16.2.2. Credits/grade/marks earned through online courses will be decided as per Clause 10.5. However, for the purpose of reporting the performance of a student, letter grades, each carrying certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the student in each subject as detailed below.

Letter Grade	Grade Points	Range of Percentage of Total Marks	Letter Grade	Grade Points	Range of Percentage of Total Marks
O (Outstanding)	10	91 to 100	O (Outstanding)	10	91 to 100
A + (Excellent)	9	81 to 90	A + (Excellent)	9	81 to 90
A (Very Good)	8	71 to 80	A (Very Good)	8	71 to 80
B + (Good)	7	61 to 70	B + (Good)	7	61 to 70
B (Average)	6	56 to 60	B (Average)	6	56 to 60
C (Satisfactory)	5	50 to 55	C (Satisfactory)	5	50 to 55
U (Reappearance)	0	< 50	U (Reappearance)	0	< 50
SA (Shortage of Attendance)	0	-	SA (Shortage of Attendance)	0	-
WD (Withdrawal)	0	-	WD (Withdrawal)	0	-

A student is deemed to have passed and acquired the corresponding credits in a particular course if

A student is deemed to have passed and acquired the corresponding credits in a

he/she obtains any one of the following grades: “O”, “A+”, “A”, “B+”, “B”, “C”.

‘SA’ denotes shortage of attendance (as per clause 8.4) and hence prevented from writing the end semester examinations. ‘SA’ will appear only in the result sheet.

“U” denotes that the student has failed to pass in that course. “WD” denotes withdrawal from the exam for the particular course. The grades U and WD will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations as per the Regulations.

If the grade U is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 8), but has to appear for the end semester examination and fulfill the norms specified in clause 14 to earn a pass in the respective courses.

If the grade U is given to EEC course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfill the norms as specified in clause 11 to earn pass in the course. However, attendance requirement need not be satisfied.

16.2 The grades O, A+, A, B+, B, C obtained for the one credit course shall figure in the Mark sheet under the title ‘Value Added Courses’. The other grades U, SA will not figure in the mark sheet.

particular course if he/she obtains any one of the following grades: “O”, “A+”, “A”, “B+”, “B”, “C”.

‘SA’ denotes shortage of attendance (as per clause 8.4) and hence prevented from writing the end semester examinations. ‘SA’ will appear only in the result sheet.

“U” denotes that the student has failed to pass in that course. “WD” denotes withdrawal from the exam for the particular course. The grades U and WD will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations as per the Regulations.

If the grade U is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 8), but has to appear for the end semester examination and fulfill the norms specified in clause 14 to earn a pass in the respective courses.

If the grade U is given to EEC course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfill the norms as specified in clause 11 to earn pass in the course. However, attendance requirement need not be satisfied.

16.2.1 The grades O, A+, A, B+, B, C obtained for the one credit course shall figure in the Mark sheet under the title ‘Value Added Courses’. The other grades U, SA will not figure in the mark sheet.

16.2.2 All assessments of a course will be done on relative grading principle except the following.

- In all the courses, if the number of students who have passed the course is less than or equal to 30 then absolute grading shall be followed with the grade range as specified in the Table.
- For the Project Work / Internship and Laboratory Courses, absolute grading procedure shall be followed as given in the

Table below irrespective of the number of students who have passed the course.

Table – Grade range for absolute grading

O	A+	A	B+	B	C	U
91-100	81-90	71-80	61-70	56-60	50-55	< 50

Relative Grading:

For those students who have passed the course (theory course / embedded courses (theory + laboratory) / all other EEC except laboratory course/Project Work Courses), the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. (theory course / embedded courses (theory + laboratory) and all other EEC Courses) as given in the Table below . If the students' strength is greater than 30, the relative grading method shall be adopted.

Letter Grade	Grade Points	Range of Percentage of Total Marks
O (Outstanding)	10	91 to 100
A + (Excellent)	9	81 to 90
A (Very Good)	8	71 to 80
B + (Good)	7	61 to 70
B (Average)	6	56 to 60
C (Satisfactory)	5	50 to 55
U (Reappearance)	0	< 50
SA (Shortage of Attendance)	0	-
WD (Withdrawal)	0	-

16.3 GPA AND CGPA CALCULATION

After the results are declared, Grade Sheets will be issued to each student which will contain the following details:

- List of courses registered during the semester and the grades scored.
- Grade Point Average (GPA) for the semester and
- Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards.

During each semester, the list of courses registered and the grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of courses registered and the grade points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester.

$$GPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

Where,

- C_i - is the Credits assigned to the course,
- GP_i - is the grade point corresponding to the letter grade obtained for each course
- n - is number of all Courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester. "U" and "SA" grades will be excluded for calculating GPA and CGPA.

16.3 GPA AND CGPA CALCULATION

After the results are declared, Grade Sheets will be issued to each student which will contain the following details:

- List of courses registered during the semester and the grades scored.
- List of courses studied for Hons., minor and any other additional courses in which the student has passed with the grades under the title additional courses.
- Grade Point Average (GPA) for the semester considering only the courses of curriculum (not the additional courses) and
- Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards considering only the courses of curriculum (not the additional courses). However, for the students who have successfully completed the requirements of B.E. / B.Tech (Hons) and B.E. / B.Tech (Minor) vide clause 18.5, grades scored in the six additional courses shall be taken into account for computation of CGPA.

The grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of courses (not the additional courses) registered and the grade points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester.

$$GPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

Where,

- C_i - is the Credits assigned to the course,
- GP_i - is the grade point corresponding to the letter grade obtained for each course
- n - is number of all Courses successfully cleared during the particular semester in the case of GPA

	<p>and during all the semesters in the case of CGPA.</p> <p>CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester. “U” and “SA” grades will be excluded for calculating GPA and CGPA.</p> <p>16.3.3 New Clause If a student successfully completes all the requirements of the programme and also meets the requirements of B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor but desires not to opt for the additional qualification, then he/she has to submit a declaration with regard to the same 30 days before the completion of semester VIII.</p> <p>16.3.4 New Clause In the consolidated grade sheet the CGPA earned shall be converted into percentage of marks as follows: Percentage of Marks = CGPA X 10.</p>
<p>Clause 18.5 B.E / B.Tech (Hons) Specialisation in the same discipline, B.E / B.Tech (Hons) and B.E / B.Tech minor in other specialisation.</p> <p>1. i). B.E / B.Tech. <i>Honours Specialisation</i> in the same discipline:</p> <ol style="list-style-type: none"> The student should have earned additionally a minimum of 18 credits from a vertical of the programme. Should have passed all the courses in the first attempt. Should have earned a minimum CGPA of 7.50. <p>ii). B.E / B.Tech. <i>Honours</i>:</p> <ol style="list-style-type: none"> The students should have earned additional courses (minimum of 18 credits) from more than one vertical of the same programme. Should have passed all the courses in the first attempt. Should have earned a minimum CGPA of 7.50. 	<p>Clause 18.5 B.E./B.Tech. (Hons) and B.E./B. Tech. minor with specialisation in another discipline. B.E. / B. Tech. (Hons) and B.E. / B. Tech. minor with specialisation in another discipline.</p> <p>(i) B.E / B.Tech. (Hons.)</p> <ol style="list-style-type: none"> The students should have taken additional courses from a specified group of Professional Elective Courses (vertical) or from any of the verticals of the same programme and earned a minimum of 18 credits. Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt. Should have earned a minimum of 7.50 CGPA taking into account of all the courses prescribed in the curriculum and additional courses. <p>(ii) B.E./B.Tech. Minor with specialisation in another discipline. The student should have earned additionally a minimum of 18 credits in any one of the verticals offered from other B.E/B.Tech programmes.</p> <ol style="list-style-type: none"> For these 18 credits students can optionally enroll and study a maximum of 6 credits in

<p>iii). B.E/B.Tech. (<i>minor</i> in other specialisation):</p> <ul style="list-style-type: none"> • The student should have earned additionally a minimum of 18 credits in any one of the verticals of other B.E/B.Tech programmes <ol style="list-style-type: none"> 2. Students can earn maximum of 6 credits in online mode (SWAYAM platform), out of these 18 credits. 3. B.E/ B. Tech. (Hons) Specialisation in the same discipline, B.E / B.Tech. Honors and B.E/B.Tech. minor in other specialisation degree will be optional for students. 4. For the categories 1(i) to 1(ii), the students will be permitted to register the courses from V Semester onwards provided the marks earned by the students until III semester should be CGPA 7.50 and above and cleared all the courses in the <i>first attempt</i>. 5. For the category 1 (iii), the students will be permitted to register the courses from Semester V onwards provided the marks earned by the students until Semester III is CGPA 7.50 and above. 6. If a student decides not to opt for Honours, after completing certain number of additional courses, the additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA. 7. If a student decides not to opt for Minor, after completing certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of open electives required as per the curriculum, the courses with higher grades shall be considered for 	<p>online mode from SWAYAM NPTEL platform (in addition to the three online courses permitted for courses of curriculum), as approved the Head of Department and the Principal.</p> <ol style="list-style-type: none"> b. B.E / B.Tech. (Hons.) and B.E./B.Tech. minor with specialisation in another discipline will be optional for students and the students shall be permitted to select any one of them only. c. For the categories 18.5 (i), the students, including Lateral Entry, shall be permitted to register for the courses from Semester V onwards provided the students have earned a minimum CGPA of 7.50 until Semester III and have cleared all the courses in the first attempt. d. For the category 18.5 (ii), the students, including Lateral Entry, will be permitted to register the courses from Semester V onwards provided the marks earned by the students until Semester III is CGPA 7.50 and above. e. B.E/B.Tech. (Hons.) or B.E./ B.Tech. Minor shall be offered by the Department irrespective of the number of students enrolled. f. If a student decides not to opt for Honours, after completing certain number of additional courses, such additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the grade sheet however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately. If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree. g. If a student decides not to opt for Minor, after completing certain number of courses,
---	---

calculation of CGPA. Remaining courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.

the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of open electives required as per the curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the grade sheet, however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.

If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree.

The student has to enroll for these additional courses separately and pay additional exam fee.

CLASSIFICATION OF THE DEGREE

FIRST CLASS WITH DISTINCTION (EXISTING)

Degree	Duration of programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in	Break of study	Prevention due to lack of attendance	Withdrawal from writing end semester examination
B.E / B.Tech. Honours Specialisation in the same discipline	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the same programme	8.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt
B.E / B.Tech. (Honours)	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from more than one verticals of the same programme	8.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt
B.E / B.Tech. minor in other programme	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the other programme	8.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt

FIRST CLASS WITH DISTINCTION (REVISED)

B.E / B.Tech. (Honours)	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the same programme or from more than one verticals of the same programme	8.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt
B.E / B.Tech. minor in other programme	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the other programme	8.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt

CLASSIFICATION OF THE DEGREE

FIRST CLASS (EXISTING)

Degree	Duration of programme	Duration permitted	Additional credits above the requirement of curriculum	CGPA	Pass in	Break of study	Prevention due to lack of attendance	Withdrawal from writing end semester examination
B.E / B.Tech. Honours Specialisation in the same discipline	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the same programme	7.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt
B.E / B.Tech. (Honours)	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from more than one verticals of the same programme	7.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt
B.E / B.Tech. minor in other programme	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the other programme	6.50	-	One year authorised break of study included in duration permitted	Included in duration permitted	-

FIRST CLASS (REVISED)

B.E / B.Tech. (Honours)	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the same programme or from more than one verticals of the same programme	7.50	First attempt	One year authorised break of study included in duration permitted	Not permitted	Will not be considered as an attempt
B.E / B.Tech. minor in other programme	3/4 years (Lateral entry, regular)	4/5 years (Lateral entry, regular)	18 credits from any one vertical of the other programme	6.50	-	One year authorised break of study included in duration permitted	Included in duration permitted	-

SECOND CLASS: No change

Approved by 12th Academic Council_25.06.2024
Amendments - 2