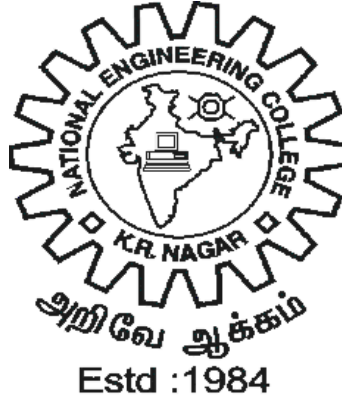


B.E / B.Tech DEGREE PROGRAMMES

(Applicable to students admitted in the year 2011 and later)

RULES AND REGULATIONS – 2011



NATIONAL ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to Anna University, Chennai)

K.R.NAGAR, KOVILPATTI – 628 503

Web: www.nec.edu.in

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K.R.NAGAR, KOVILPATTI-628503

RULES AND REGULATIONS (2011-12) B.E. / B.Tech. Degree Programmes

(The following rules and regulations are applicable to the candidates admitted from the academic year 2011-12 onwards)

1.0 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these regulations, the context requires:

- i) "**Programme**" means UG Degree Programme, that is B.E. / B.Tech. Degree Programme.
- ii) "**Branch**" means specialization or discipline of B.E. / B.Tech. Degree Programme like Mechanical Engineering, Information Technology, etc.,
- iii) "**Course**" means a theory or practical subject that is normally studied in a semester, like Mathematics, Physics, etc.,
- iv) "**University**" means ANNA UNIVERSITY.

2.0 QUALIFICATIONS FOR ADMISSION

- 2.1 The candidates seeking admission for the first semester B.E./B.Tech. degree program should have passed the Higher Secondary Examination in the academic stream with Mathematics, Physics and Chemistry as main subjects of study conducted by the Government of Tamilnadu or an examination accepted by the syndicate of Anna University as equivalent there to. They should also satisfy other eligibility rules as prescribed by the Anna University and Director of Technical Education, Chennai, from time to time.

(OR)

Should have passed the Higher Secondary Examination of Vocational Stream (Vocational groups in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

2.2 Lateral entry admission

- (i) The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for admission to the third semester of B.E. / B.Tech. in the branch corresponding to the branch of study.

(OR)

- (ii) The candidates who possess the Degree in Science (B.Sc.,) (10+2+3 stream) with mathematics as a subject at the B.Sc. level are eligible to apply for admission to the third semester of B.E. / B.Tech.

Such candidates shall undergo two additional Engineering subject(s) in the third and fourth semesters or fourth and six semesters respectively as prescribed by the respective faculty.

3.0 BRANCHES OF STUDY

1. B.E. (Mechanical Engineering)
2. B.E. (Electronics and Communication Engineering)
3. B.E. (Computer Science and Engineering)
4. B.E. (Electrical and Electronics Engineering)
5. B.E. (Electronics and Instrumentation Engineering)
6. B.E. (Civil Engineering)
7. B.Tech. (Information Technology)

4.0 DURATION OF THE PROGRAMME AND SEMESTER

- 4.1 The minimum and maximum period for completion of the UG programs are given below.

Programme	Minimum No. of semesters	Maximum No. of semesters
B.E. / B.Tech.,	8	14
B.E. / B.Tech., Lateral Entry	6	12

Each semester normally consists of 90 working days. In any contingent situation, the number of working days per semester shall not be less than 65 days. The Principal is given the discretionary powers to decide the number of working days in such contingencies. The Principal shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

- 4.2 For the purpose of regulations, the academic year will be divided into two semesters, the odd semester normally spanning from June to November and the even semester from December to May.
- 4.3 The first semester of B.E./B.Tech. Degree Programme normally spans from August to December and second semester from January to May.
- 4.4 The courses in the curriculum of the odd semesters will be conducted only in odd semesters and that of the even semesters only in even semesters and a candidate may proceed to any semester if and only if he / she has completed the course prescribed for the previous semesters.

5.0 ATTENDANCE REQUIREMENTS FOR COMPLETION OF A SEMESTER

- 5.1 A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester:
- a. He/she shall have earned not less than 75% of attendance in each course in that semester and not less than 75% of attendance on an average in all the courses put together in that semester.
 - b. His/her progress shall be satisfactory, and

- c. His/her conduct shall be satisfactory.
- 5.2 Students who have earned less than 75% attendance in any individual course of the semester are not deemed to have completed the semester.
- 5.3 A candidate who secures 65% attendance (without considering any leave) in any individual course and an average attendance between 65% and 74% (without considering any leave) in all the courses put together in the current semester due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Principal / competent authority shall be given exemption from the prescribed attendance requirement and he/she shall be permitted to appear for the semester examinations.
- 5.4 The students can take part in any of the following activities:
- Sports and Games: TIES, Inter collegiate, Inter Zonal, Inter University, State level.
 - National level and Open Tournaments.
 - NCC: Camps and expeditions.
 - NSS camps.
 - YRC activities.
 - Cultural Programs.
 - Seminar / Symposia: Paper presentation / Quiz.
 - Leadership course organized by other organizations & Alumni Association activities.
 - Training Programs Association Activities.
 - Personal damages incurred during the extra-curricular activities.
 - Projects in Industries/Organizations.
 - Placement activities.
- 5.5 Percentage of attendance for the leave period (Medical Leave or ODL or Both) for the purpose of calculation of eligibility will be worked out based on the actual number of working days during the period of leave availed by the student and the actual total number of working days in that semester.
- 5.6 The ODL (On Duty Leave) requisition letter of the student shall be forwarded to the Principal through the concerned HOD by the staff in charge of the respective activities before / after completion of the every activity.
- 5.7 The ODL sanctioned letters shall be submitted to the Department office. The staff in charge of the department office will check the eligibility for the award of attendance at the end of semester and the same may be submitted to the HOD for approval.

5.8 Those students who are not deemed to have completed the semester with reference to the conditions specified above shall undergo the semester again in all the courses in the respective semester of next academic year.

6.0 FACULTY ADVISER (TUTOR)

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department of the students will allot a certain number of students to the teacher of the Department who shall function as Tutor for those students throughout their period of study. Such Tutor shall advise the students and monitor the courses undergone by them, check the attendance and progress of the students attached to him/her and counsels them periodically. If necessary, the faculty adviser may also discuss with or inform the parents about the progress of the students through concerned Head of the Department.

7.0 CLASS COMMITTEE

7.1 Every class shall have a class committee consists of all teachers handling courses of the concerned class, student representatives - cross section of students (Academically good, Average, Poor) and a chairperson who is a faculty not handling the course for the class. The overall goal of the Class Committee is to improve the teaching-learning process. The functions of the Class Committee include:

- Solving problems experienced by students in the classroom and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules therein.
- Informing the student representatives about the academic schedule including the date of assessments (Tests & Assignments) and the syllabus coverage for each assessment.
- Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any
- Identifying the weak students, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such weak students.

7.2 The class committee for a class under a particular branch is normally constituted by the Head of the department. However, if the students of different branches are mixed in a class (like the first semester which is generally common to all branches), the class committee is to be constituted by the Chief Tutor.

7.3 The class committee shall be constituted on the first week of commencement of any semester.

7.4 At least 6 student representatives (usually 3 boys and 3 girls) shall be included in the class committee.

7.5 The chairperson of the class committee may invite the Tutor(s) and the Head of the Department to the meeting of the class committee.

7.6 The Principal may participate in any class committee meeting.

- 7.7 The chairperson is required to prepare the minutes of every meeting, submit the same to HOD within two working days of the meeting and arrange to circulate among the concerned students and teachers. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management by the head of the institution.
- 7.8 The class committee shall meet four times in a semester:
- The first meeting within a week from the date of commencement of the semester.
 - The second meeting a week after the first test results.
 - The third meeting a week after the second test results.
 - The last meeting a week after the third test results or a week before the last working day of the semester.
- 7.9 During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of other students of the class to improve the effectiveness of the teaching-learning process.

8.0 SYSTEM OF EXAMINATION

- 8.1 Performance in each course of study shall be evaluated based on (i) continuous internal assessment throughout the semester and (ii) End Semester Examination at the end of the semester.
- 8.2 Each course, both theory and practical (other than project work) shall be evaluated for a maximum of 100 marks. The project work shall be evaluated for a maximum of 200 marks.
- 8.2.1 For all theory and practical courses other than project work, the continuous internal assessment shall carry **30 and 40** marks respectively while the end semester examination shall carry **70 and 60** marks for theory and practical respectively.
- 8.2.2 For project work, the continuous internal assessment shall carry **80** marks while the end semester examinations shall carry **120** marks.
- 8.3 The End Semester Examination (theory and practical) of 3 hours duration shall ordinarily be conducted between November and January during the odd semesters and between May and July during the even semesters.
- 8.4 The End Semester Examination for project work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner and an internal examiner.

However, if a student fails to submit the project report on or before the specified deadline and the project work does not meet the requirement, he/she is deemed to have failed in the project work and shall re-enroll for the same in a subsequent semester. If he/she fails in the viva-voce examination of Project work, he/she shall resubmit the project report within 30 days from the date of declaration of the results. For this purpose, the same Internal and External examiner shall evaluate the re-submitted report.

- 8.5 The End Semester examinations of practical courses including project work shall be evaluated by both internal and external examiners.
- 8.6 The End Semester theory examinations shall be conducted by Chief Superintendent appointed by Principal. The Hall Superintendents from the college shall invigilate the halls during theory examinations.
- 8.7 Comprehension course should be considered as a practical course. 3 Hours per week should be allotted for the comprehension. One credit will be awarded for the comprehension and the evaluation of the End Semester Examination is done by the **Internal Faculty**.

9.0 PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

9.1 For all theory courses, the continuous assessment shall be for a maximum of 30 marks (consisting of 25 marks for tests / assignments / seminar / Quiz and 5 marks for attendance). For all Practical Courses, the continuous assessment shall be for a maximum of 40 marks (consisting of 30 marks for viva, conducting experiments results and 10 marks for attendance). For project work, the continuous assessment shall be for a maximum of 80 marks (consisting of 70 marks for project assessment by three periodical reviews and 10 marks for attendance). The above continuous assessment shall be awarded as per the procedure given below:

a) **Theory Courses**

Three Assessments each carrying 100 marks shall be conducted during the semester by the Staff / Department concerned. The total marks obtained in all three assessments put together, out of 300 shall be proportionately reduced for 25 marks and rounded to the nearest integer (This also implies equal weightage to all the three assessments).

b) **Practical Courses**

Every practical course shall be evaluated based on the completion of experiment, viva and the records of work done maintained. There shall be at least one test during the semester.

c) **Project Work**

The concerned HOD shall constitute a review committee for the branch. There shall be three assessments (each 100 Marks) during the semester by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three assessments shall be **reduced for 70 marks** and rounded to the nearest integer. (This also implies equal weightage to all the three assessments).

9.2 Attendance

The marks for attendance shall be awarded as given below:

Attendance	Marks	
	For Theory	For Practicals & Project work
75% to 80% of attendance	2	4

81% to 85% of attendance	3	6
86% to 90% of attendance	4	8
91% to 100% of attendance	5	10

9.3 Each Staff member shall maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked for each lecture / practical / project work class, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of continuous assessments and attendance. The Head of the Department will verify the details given by the Staff member. At the end of the semester, the record should be verified by the Principal who will keep this document in safe custody (for five years). The Academic auditing committee appointed by the Principal may inspect the records of attendance and assessment of both current and previous semesters.

9.4 REQUIREMENTS FOR APPEARING FOR TERMINAL EXAMINATION

A candidate shall normally be permitted to appear for the End Semester Examination of any semester commencing from I semester if he/she has satisfied the semester completion requirements and has registered for examination in all courses of the semester. Registration is mandatory for end semester examinations as well as arrear examinations failing which the candidate will not be permitted to move to the higher semester. A candidate already appeared for subjects or any subject in a semester and passed the examination is not entitled to reappear in the same subject or subjects of the semester for improvement of grades / marks.

9.5 PASSING REQUIREMENTS

9.5.1 A candidate who secures not less than 50% of total marks prescribed for the courses with a minimum of 45% of the marks prescribed for the End Semester Examination in theory and 50% for practical courses (including Project work), shall be declared to have passed the Examination.

9.5.2 If a candidate fails to secure a pass in a particular course, it is mandatory that he/she shall register and reappear for the examination in that course during the subsequent semester when examination is conducted in that course; he/she should continue to register and reappear for the examinations in the failed subjects till he / she secures a pass.

9.5.3 The internal assessment marks obtained by the candidate in the first appearance shall be retained and considered valid only upto second attempt. From the 3rd attempt onwards the passing requirement shall be as follows:

The candidate should secure a minimum of 50% of the maximum marks prescribed for course in the End Semester Examinations alone to get pass in that subject.

9.6 AWARD OF LETTER GRADES

9.6.1 All assessments of a course will be done on absolute mark basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the candidate in each subject as detailed below:

Letter grade	Grade Points	Marks Range
S	10	91 - 100
A	9	81 - 90
B	8	71 - 80
C	7	61 - 70
D	6	56 - 60
E	5	50 - 55
U	0	< 50
I	0	
W	0	
AB	0	

“U” denotes unsatisfactory grade which requires Reappearance (RA) in the examination for that particular course. (RA will figure in Result sheets & Grade sheets). “W” denotes **withdrawal** from the course. “AB” denotes **absent**. The Grade “I” denotes **inadequate attendance** and hence prevention from writing the end semester examination. The Grade “I”, “W” and “AB” will figure only in the Result Sheets.

9.6.2 GRADE SHEET

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

- The College Name and Affiliated University.
- The list of courses enrolled during the semester and the grade scored.
- The Grade Point Average (GPA) for the semester.
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA is the ratio of the sum of the products of the number of credits of courses enrolled and the 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.

$$\text{GPA} = \frac{\text{Sum of [Credits acquired} \times \text{Grade Points]}}{\text{Sum of Credits Registered}}$$

GPA will be calculated in a similar manner, considering all the courses enrolled from first semester. “RA”, “I”, “AB” and “W” grades will be excluded for calculating GPA and CGPA.

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

where C_i is the Credits assigned to the course

GP_i - is the point corresponding to the 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

9.7 REVALUATION

A candidate can apply for revaluation of his/her semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the HOD. **A candidate can apply for**

- i. **Revaluation of answer scripts for not exceeding 5 subjects at a time.**
- ii. **Xerox copy of the answer scripts**

The revaluation results will be intimated to the candidate concerned through the Head of the Department. **Revaluation is not permitted for practical courses, seminars, practical training and for project work.**

10.0 ELIGIBILITY FOR THE AWARD OF THE DEGREE

10.1 A student shall be declared to be eligible for the award of the Degree only when

- Successfully gained the required number of total credits as specified in the curriculum corresponding to his/her Programme within the stipulated time.
- No disciplinary action is pending against him/her.
- Successfully completed the field visit / industrial training, if any, as prescribed in the curriculum.
- The maximum time limit for the completion of the B.E. / B.Tech. Degree programmes will be 7 (SEVEN) years (FOURTEEN consecutive semesters) from the date of admission to the first semester of the programme and 6 (SIX) years (TWELVE consecutive semesters) for the lateral entry candidates from the date of admission to the third semester of the programme.
- The award of the Degree shall be approved by the syndicate of the University.
- Successfully completed any additional courses prescribed by the Dean (Academic), whenever any candidate is readmitted under Regulations other than R – 2011.

11.0 CLASSIFICATION OF THE DEGREE AWARDED

11.1 First class with Distinction:

A candidate who qualifies for the award of Bachelors degree having passed all the prescribed examinations in all the courses within **EIGHT semesters (SIX semesters** for Lateral Entry Candidates) in his / her first appearance securing a **CGPA of not less than 8.00** shall be declared to have passed in First Class with distinction. For this purpose the withdrawal from examination (**vide clause 12.4**) will not be construed as an appearance. Further, the authorized break of study (**vide clause 13**) will not be counted for the purpose of classification.

- Should not have been prevented from writing end semester examination due to lack of attendance / malpractice in any of the semester.

11.2 First Class:

A candidate who qualifies for the award of degree having passed the examination in all the subjects within **TEN semesters (EIGHT semesters** for Lateral Entry candidates) consecutively and securing a **CGPA of not less than 6.00** shall be declared to have passed in **First class**. For this purpose the authorized break of study (**vide clause 13**) will not be counted for the purpose of classification.

11.3 Second Class:

All other candidate who qualifies for the award of degree having passed the examination in all the courses and fulfilling the requirements given above shall be declared to have passed in Second Class.

- 11.4 A candidate who is absent in semester examination in a course/project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (Subject to clause 13.0 & 15.0)

12.0 PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- 12.1 A candidate may be granted permission to withdraw from appearing for the examination of any one course or consecutive examinations of more than one course in a semester examination for valid reasons and on prior application.

- 12.2 Such withdrawal shall be permitted only once during the entire period of study.

- 12.3 Withdrawal application is valid only if it is made within 10 days prior to the commencement of the examination in that course or courses and recommended by the HOD and approved by the Principal.

- 12.3.1 Not withstanding the requirement of mandatory TEN days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

- 12.4 Withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction. This provision is not applicable to those who seek withdrawal during VII semester.

- 12.5 Withdrawal from the End semester examination is **NOT** applicable to arrears subjects of previous semesters.

- 12.6 The candidate shall reappear for the withdrawn courses during the examination conducted in the subsequent semester.

13.0 PROVISION FOR AUTHORISED BREAK OF STUDY

- 13.1 Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation the candidate may apply for additional break of study not exceeding another one year by paying

prescribed fee for break of study. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the **Principal, in advance**, but not later than the last date for registering for the end semester examination of the semester in question, through the Principal of the Institution stating the reasons therefore and the probable date of rejoining the programme.

- 13.2 The candidate permitted to rejoin the Programme after the break shall be governed by the Curriculum and Regulations in force at the time of rejoining. **If the Regulation is changed**, then, those candidates may have to do additional courses as prescribed by the **Dean (Academic)**.
- 13.3 The authorized break of study (for a maximum of one year) will not be counted for the duration specified for passing all the courses for the purpose of classification. However, additional break of study granted will be counted for the purpose of classification.
- 13.4 The total period for completion of the Programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- 13.5 If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted 'Break of Study' or "Withdrawal' is not applicable for this case.

14.0 INDUSTRIAL VISIT

Every student is required to undergo one Industrial visit per year of the Programme. Every teacher shall take the students at least for one industrial visit in a year.

15.0 WITHDRAWAL FROM THE EXAMINATIONS

- 15.1 A candidate will be permitted to withdraw in any one of the semesters except first semester (Third semester for lateral entry candidates) during the entire duration of the Degree Programme, for valid and genuine reasons by making an application in the office of the Controller of Examinations along with the Hall ticket or attendance certificate from the Head of the Department for withdrawal at least one day in advance of the last theory examination in that semester.
- 15.2 When he/she appears subsequently, he/she has to appear for all the subjects of that semester. Subsequent appearance will not be counted as separate attempt.
- 15.3 Those candidates who withdraw are eligible for the award of First Class and First Class with Distinction as per the requirement in this regard. However he/she will not be ranked.
- 15.4 Withdrawal is permitted only once in the whole programme.

16.0 DISCIPLINE

Every student is required to observe discipline and decorous behavior both inside and outside the college and not to indulge in any activity, which will tend to bring down the prestige of the college.

17.0 REVISION OF REGULATIONS AND CURRICULUM

The Academic Council of the College reserves the right to revise or change or amend the regulations, the scheme of examinations, the curriculum and the syllabi from time to time if found necessary.

18.0 SPECIAL CASES

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Standing Committee. The Standing 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 will be final.
