



**KARPAGAM UNIVERSITY**  
**Karpagam Academy of Higher Education**  
*(Established Under Section 3 of UGC Act 1956)*

**FACULTY OF ENGINEERING**  
**DEGREE OF BACHELOR OF ENGINEERING /**  
**TECHNOLOGY (B. E. / B. Tech.)**  
**REGULAR PROGRAMME**

**REGULATIONS**  
**(2011)**

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(Established Under Section 3 of UGC Act 1956)  
**Eachanari post, COIMBATORE 641 021, INDIA**

**FACULTY OF ENGINEERING**  
**DEGREE OF BACHELOR OF ENGINEERING /**  
**TECHNOLOGY**  
**REGULAR PROGRAMME**  
**REGULATIONS 2011**  
**CREDIT SYSTEM**

**These regulations are effective from the academic year 2011-2012 and applicable to the candidates admitted to B. E. / B. Tech. during 2011-2012 and onwards.**

**1. ADMISSION**

1.1 Candidates seeking admission to the first semester of the eight semesters B.E. / B. Tech. Degree Programme:

Should have passed the Higher Secondary Examination of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Board of Management of University as equivalent thereto.

**(OR)**

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

**1.2 Lateral Entry Admission**

The candidates who possess the Diploma in Engineering / Technology awarded by the Directorate 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. The candidates who possess the Bachelor Degree in Science, awarded by any University or its equivalent are eligible to apply for admission to the third semester of B.E. / B. Tech. in the branch corresponding to their branch of study.

### **1.3 Migration from other University**

Candidates who have completed their First to sixth semesters of B. E. study in any University are eligible to apply for admission to their next semester of B.E. / B. Tech. in the branch corresponding to their branch of study.

## **2. PROGRAMMES OFFERED**

A candidate may be offered a programme in any one of the branches of study approved by the University as given below.

### **List of B. E. Degree Programmes**

1. B. E. Aeronautical Engineering
2. B. E. Automobile Engineering
3. B.E. Civil Engineering
4. B.E. Computer science and Engineering
5. B.E. Electrical and Electronics Engineering
6. B.E. Electronics and Communications Engineering
7. B.E. Mechanical Engineering

## **3. MODE OF STUDY**

### **3.1 Full-Time:**

In this mode of study, the candidates are required to attend classes regularly on the specified working days of the Univeristy.

3.2 Conversion from full time mode of study to part time is not permitted.

3.3 Conversion from one programme to another is not permitted.

## 4. STRUCTURE OF PROGRAMMES

4.1 Every Programme will have curricula with syllabi consisting of theory and practicals such as:

- (i) General core courses comprising Mathematics, Basic Sciences, Engineering Sciences, Humanities and Engineering.
- (ii) Core courses of Engineering/Technology.
- (iii) Elective courses for specialization in related fields.
- (iv) Workshop practice, computer practice, engineering graphics, laboratory work, industrial training, seminar presentation, project work, educational tours, camps etc.
- (v) NCC / NSS / NSO / YRC activities for character development.

There shall be a certain minimum number of core courses and sufficient number of elective courses that can be opted by the student. The blend of different courses shall be so designed that the student, at the end of the programme, would have been trained not only in his / her relevant professional field but also would have developed as a socially conscious human being.

4.2 Each course is normally assigned certain number of credits.

No. of credit per lecture hour period per week	: 1
No. of credit per tutorial period per week	: 1
No. of credit for 3 periods of laboratory per week	: 1
No. of credit for 2 periods of seminar per week	: 1
No. of credit for 3 periods of project work per week	: 1
No. of credit for 4 weeks of industrial training during semester vacations	: 1

4.3 Each semester curriculum shall normally have a blend of lecture courses not exceeding 7 and practical courses not exceeding 4. However, the total number of courses per semester shall not exceed 10.

4.4 The prescribed credits required for the award of the degree shall be within the limits specified below.

<b>PROGRAMME</b>	<b>PRESCRIBED CREDIT RANGE</b>
B. E. / B.Tech.	<b>160 - 180</b>

**4.5 The medium of instruction for all Courses, Examinations, Seminar presentations and Project / Thesis / Dissertation reports is English.**

## **5. DURATION OF THE PROGRAMME**

- 5.1 A student is ordinarily expected to complete the B.E. / B. Tech. Programme in 8 semesters (four academic years) but in any case not more than 14 Semesters for H. Sc. candidates and not more than 12 semesters for Lateral Entry Candidates.
- 5.2 Each semester shall normally consist of 90 working days or 540 hours each. The Dean and HoDs shall ensure that every teacher imparts instruction as per the number of periods / hours specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.
- 5.3 The Dean may arrange additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. But for the purpose of calculation of attendance requirement or writing the end semester examinations (as per clause 9) by the students 540 periods conducted within the specified academic schedule alone shall be taken into account and the overall percentage of attendance shall be calculated accordingly.
- 5.4 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 in clause 4.1 irrespective of the period of break of study (vide clause 17.3) in order that he/she may be eligible for the award of the degree (vide clause 14).

## **6. REQUIREMENTS FOR COMPLETION OF THE SEMESTER**

A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester.

- 6.1 Ideally every student is expected to attend all classes and secure 100% attendance. However, in order to allow for certain unavoidable reasons, the student is expected to attend at least 75% of the classes.
- 6.2 However, **a candidate who has secured attendance less than 75 % in the current semester due to any reason, shall not be permitted to appear for the current semester examinations.** But he/she will be permitted to appear for his/her arrear examinations, if any and he/she has to re do the same semester.

## **7. FACULTY ADVISOR**

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department will attach a certain number of students to a teacher of the Department who shall function as **Faculty Advisor** for those students throughout their period of study. Such Faculty Advisors shall advise the students and monitor the courses undergone by the students, check the attendance and progress of the students attached to him/her and counsel them periodically. If necessary, the faculty advisor may display the cumulative attendance particulars in the Department notice board and also discuss with or inform the Parents/Guardian about the progress of the students.

## **8. CLASS COMMITTEE**

- 8.1. Every class shall have a class committee consisting of teachers of the class concerned, student representatives [two boys and two girls] and the concerned Head of the Department. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching-learning process. The functions of the class committee include
- Solving problems experienced by students in the class room and in the laboratories.
  - Clarifying the regulations of the degree programme and the details of rules therein particularly clause 4 and 5 which should be displayed on department Notice-Board.

- Informing the student representatives the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing / project work / seminar etc.) the breakup of marks for each experiment / exercise /module of work, should be clearly discussed in the class committee meeting and informed to the students.
- 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.

8.2 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 Dean.

8.3 The class committee shall be constituted within the first week of each semester.

8.4 At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee.

8.5 The Chairperson of the Class Committee may convene the meeting of the class committee.

8.6 The Dean may participate in any Class Committee of the institution.

8.7 The Chairperson is required to prepare the minutes of every meeting, submit the same to Dean within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the Management, the same shall be brought to the notice of the Registrar by the HOD through Dean.

8.8 The first meeting of the Class Committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

## **9. COURSE COMMITTEE FOR COMMON COURSES**

Each common theory course offered to more than one discipline or group, shall have a “Course Committee” comprising all the teachers handling the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the Dean depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The ‘Course Committee’ shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Where ever feasible, the Course Committee may also prepare a common question paper for the Internal Assessment test(s).

## **10. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT**

10.1 Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or 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 test marks and attendance. The Head of the Department shall sign with date after due verification. At the end of the semester, the record should be verified by the Dean who will keep this document in safe custody (for five years). Records of attendance and assessment of both

current and previous semesters shall be submitted for Inspection to the team appointed by the University/any other approved body.

**10.2 Continuous Internal Assessment (CIA):** The performance of students in each subject will be continuously assessed by the respective teachers as per the guidelines given below:

**THEORY COURSES:**

S. No.	CATEGORY	MAXIMUM MARKS
1.	Assignment *	5
2.	Attendance	5
3.	Test – I #	15
4.	Test – II #	15
<b>Continuous Internal Assessment : TOTAL</b>		<b>40</b>

\* The Assignments should be evaluated and marks should be entered in Automation software on or before 60<sup>th</sup> working day of the semester.

# The test scripts should be evaluated and marks should be entered in Automation software on or before 4<sup>th</sup> working day after the last test.

**PATTERN OF TEST QUESTION PAPER:**

INSTRUCTION	REMARKS
<b>Maximum Marks</b>	50 marks for all Tests
<b>Duration</b>	2 Hours
<b>Part - A</b>	10 Two mark Questions ( <b>10 x 2 = 20 Marks</b> ) Question No. 1 to 10, covering 4 questions from each unit.
<b>Part- B</b>	5 Six mark Questions ( <b>5 x 6 = 30 Marks</b> ) Question No. 11 to 17, covering the two and half units of the syllabus; out of seven questions, candidate has to attend any five questions.

## PRACTICAL COURSES:

S. No	CATEGORY	MAXIMUM MARKS
1.	Attendance	5
2.	Observation work	5
3.	Record work	5
4.	Model examination	15
5.	Viva – voce [Comprehensive]	10
<b>Continuous Internal Assessment: TOTAL</b>		<b>40</b>

Every practical Exercise / Experiment shall be evaluated based on the conduct of Exercise/ Experiment and records maintained.

### 10.3 ATTENDANCE

#### Marks Distribution for Attendance

S. No.	Attendance %	Marks
1	80 % and above	5
2	Less than 80 %	0

## 11. REQUIREMENTS FOR APPEARING FOR UNIVERSITY EXAMINATION

A candidate shall normally be permitted to appear for the University Examination of any semester commencing from I semester if he/she has satisfied the semester completion requirements (Subject to Clause 5) and has registered for examination in all courses of the semester. Registration is mandatory for Semester Examinations as well as Arrears 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.

## 12. UNIVERSITY EXAMINATIONS

**End Semester Examination (ESE):** End Semester Examination will be held at the end of each semester for each subject, which consists of 100 marks, later scaled down to 60 marks.

## PATTERN OF ESE QUESTION PAPER:

INSTRUCTION	REMARKS
<b>Maximum Marks</b>	100 marks for all Semester Examinations.
<b>Duration</b>	3 Hours
<b>Part - A</b>	15 Two mark Questions ( <b>15 x 2 = 30 Marks</b> ) Question No. 1 to 15, covering 3 questions from each unit (Answer all questions)

INSTRUCTION	REMARKS
<b>Part- B</b>	5 Fourteen mark Questions ( <b>5 x 14 = 70 Marks</b> ) Question No. 16 to 20 will be ' <b>either-or</b> ' type, covering all five units of the syllabus; i.e ., Question No. 16: Unit - I, either 16 (a) or 16 (b) Question No. 17: Unit - II, either 17 (a) or 17 (b) Question No. 18: Unit - III, either 18 (a) or 18 (b) Question No. 19: Unit - IV, either 19 (a) or 19 (b) Question No. 20: Unit - V, either 20 (a) or 20 (b) to be answered.

### 13. PASSING REQUIREMENTS

**13.1 Passing minimum: There is no passing minimum for CIA. The passing minimum for End Semester Examination is 30 (i.e. out of 60 marks). The overall passing minimum for examination is 50 (Sum of his/her score in internal and external examination) out of 100 marks.**

13.2 If the candidate fails to secure a pass in a particular course as per clause 11.1, it is mandatory that candidate shall register and reappear for the examination in that course during the subsequent semester when examination is conducted in that course. Further the candidate should continue to register and reappear for the examination till a **pass** is secured in End Semester Examination of such arrear subjects.

The Continuous Internal Assessment marks obtained by the candidate in the first appearance shall be retained by the Office of the Controller of Examinations and considered valid for all subsequent attempts till the candidate secure a pass.

#### **14. AWARD OF LETTER GRADES**

14.1 All assessments of a course will be done on absolute marks 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:

<b>Letter grade</b>	<b>Marks Range</b>	<b>Grade Point</b>	<b>Description</b>
O	90 - 100	10	OUTSTANDING
A	80-89	9	EXCELLENT
B	70-79	8	VERY GOOD
C	60-69	7	GOOD
D	50-59	6	AVERAGE
RA	<50		REAPPEARANCE

#### **14.2 GRADE SHEET**

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

- i. The list of courses enrolled during the semester and the grade scored.
- ii. The Grade Point Average (**GPA**) for the semester and
- iii. 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 (**C**) of courses enrolled and the points corresponding to the grades (**GP**) scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester to the sum of the credits of all courses registered.

$$\text{GPA} = \frac{\text{Sum of [C * GP]}}{\text{Sum of C}}$$

**CGPA** will be calculated in a similar manner, considering all the courses enrolled from first semester. “**RA** grade will be excluded for calculating **GPA** and **CGPA**.

14.3 Whenever students, having arrear subjects, appear for the end semester examination during which there are no regular batch of students writing the same subjects, then, the letter grades for the arrears subjects shall be awarded based on the range of marks.

#### **14.4 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 Head of the Department and Dean. **A candidate can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.** The Controller of Examination will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the Department and Dean. Revaluation is not permitted for Practical Courses, Seminars, Practical Training and for Project Work.

#### **15. ELIGIBILITY FOR THE AWARD OF THE DEGREE**

**A student shall be declared to be eligible for the award of the Degree if he/she has**

- 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 award of the degree must be approved by the Board of Management.

## **16. CLASSIFICATION OF THE DEGREE AWARDED**

16.1 A candidate who qualifies for the award of the Degree (vide clause 14) having passed the examination in all the courses in his/her first appearance within the specified minimum number of semesters securing a **CGPA of not less than 9** shall be declared to have passed the examination in **First Class with Distinction**.

16.2 A candidate who qualifies for the award of the Degree (vide clause 14) having passed the examination in all the courses within the specified minimum number of semesters plus one year (two semesters), securing **CGPA of not less than 7** shall be declared to have passed the examination in **First Class**. For this purpose the withdrawal from examination (vide clause 16) will not be construed as an appearance. Further, the authorized break of study (vide clause 17) will not be counted for the purpose of classification.

16.3 All other candidates (not covered in clauses 15.1 and 15.2) who qualify for the award of the degree (vide Clause 15) shall be declared to have passed the examination in **Second Class**.

16.4 A candidate who is absent in semester examination in a course / project work after having enrolled for the same shall be considered to have appeared in that examination for the purpose of classification.

## **17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION**

17.1 A candidate, may for valid reasons and on prior application, 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.

17.2 Such withdrawal shall be permitted only once during the entire period of study of the degree programme.

17.3 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 Head of the Department and Dean and approved by the Registrar.

17.3.1 Notwithstanding 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.

17.4 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 VIII semester.

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

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

## **18. PROVISION FOR AUTHORISED BREAK OF STUDY**

**18.1 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 Registrar, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Department and Dean stating the reasons therefore and the probable date of rejoining the programme.

18.2 The candidate thus permitted to rejoin the Programme after the break shall be governed by the Curriculum and Regulations in force at the time of rejoining. Such candidates may have to do additional courses as per the Regulations in force at that period of time.

- 18.3 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. (vide Clause 17). However, additional break of study granted will be counted for the purpose of classification.
- 18.4 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 in clause 4.1 irrespective of the period of break of study (vide clause 17.3) in order that he/she may be eligible for the award of the degree.
- 18.5 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' (Clause 16 and 17.3) is not applicable for this case.

## **19. INDUSTRIAL VISIT**

Every student is required to undergo one Industrial visit for every theory course offered, starting from the third semester of the Programme. Every teacher shall take the students at least for one industrial visit in a semester.

## **20. PERSONALITY AND CHARACTER DEVELOPMENT**

All students shall enroll, on admission, in any one of the personality and character development programmes (the NCC / NSS / NSO / YRC) and undergo training for about 80 hours and attend a camp of about ten days. The training shall include classes on hygiene and health awareness and also training in first-aid.

**National Cadet Corps (NCC)** will have about 20 parades.

**National Service Scheme (NSS)** will have social service activities in and around the 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 the Institutions.

While the training activities will normally be during week ends, the camp will normally be during vacation period.

Every student shall put in a minimum of 75% attendance in the training and attend the camp compulsorily. The training and camp shall be completed during the first year of the programme. However, for valid reasons, the Dean / Registrar may permit a student to complete this requirement in the second year.

## **21. DISCIPLINE**

Every student is required to observe disciplined 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 University. The erring student will be referred to the Disciplinary Committee constituted by the University, to enquire into acts of indiscipline and recommend the University about the disciplinary action to be taken. If a student indulges in malpractice in any of the University / Internal Examination he / she shall be liable for punitive action as prescribed by the university from time to time.

## **22. REVISION OF REGULATION AND CURRICULUM**

The University may from time to time revise, amend or change the Regulations, Scheme of Examinations and syllabi if found necessary.