

# ACADEMIC REGULATIONS

For  
**B. Tech. Four Year Degree Programme**  
(MR15 Regulations)  
Effective from the Academic Year 2015-16



## MALLAREDDY ENGINEERING COLLEGE (Autonomous)

(An Autonomous Institution approved by UGC and affiliated to JNTUH, Approved by AICTE & Accredited by NAAC with 'A' Grade and NBA & Recipient of World Bank Assistance under TEQIP Phase – II, S.C 1.1)

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## **MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)**

### **MR15 Academic Regulations (CBCS) for B.Tech. (REGULAR) Degree Programme**

Applicable for the students of B.Tech. (Regular) programme from the Academic Year *2015-16* and onwards

The B.Tech. Degree of Jawaharlal Nehru Technological University Hyderabad shall be conferred on candidates who are admitted to the programme and who fulfill all the requirements for the award of the Degree.

#### **VISION**

To be a premier center of professional education and research, offering quality programs in a socio-economic and ethical ambience.

#### **MISSION**

- To impart knowledge of advanced technologies using state-of-the-art infrastructural facilities.
- To inculcate innovation and best practices in education, training and research.
- To meet changing socio-economic needs in an ethical ambience.

## PROGRAM OUTCOMES (POs)

- PO1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### 1. Under-Graduate Degree Programme in Engineering & Technology (UGP in E&T):

MREC (Autonomous) offers 4 Year (8 Semesters) **Bachelor of Technology (B.Tech.)** Degree Programme, under Choice Based Credit System (CBCS) with effect from the Academic Year 2015 - 16 onwards, in the following branches of Engineering

Serial Number	Branch Code	Branch
1	01	Civil Engineering (CE)
2	02	Electrical and Electronics Engineering (EEE)
3	03	Mechanical Engineering (ME)
4	04	Electronics and Communication Engineering (ECE)
5	05	Computer Science and Engineering (CSE)
6	25	Mining Engineering (MinE)

### 2. Eligibility for Admission:

- 2.1. Admission to the UGP shall be made either on the basis of the merit rank obtained by the qualifying candidate at an Entrance Test conducted by the Telangana State Government (TSEAMCET), or the University, or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the Government from time to time.
- 2.2. The medium of instructions for the entire UGP in E&T will be ENGLISH only.

### 3. B.Tech. Programme (UGP) Structure:

- 3.1. The B.Tech. Programmes of MREC (A) are of Semester Pattern, with 8 Semesters. Each Semester shall be of 22 Weeks duration (inclusive of Examinations), with a minimum of 90 Instructional Days per Semester.
- 3.2. UGC/ AICTE specified Definitions/ Descriptions are adopted appropriately for various terms and abbreviations used in these Academic Regulations/ Norms, which are as listed below.
  - 3.2.1. **Semester Scheme:** Each UGP is of 8 Semesters, with the academic year being divided into two Semesters of 22 weeks each, each Semester having - ‘**Continuous Internal Evaluation (CIE)**’ and ‘**Semester End Examination (SEE)**’. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as denoted by UGC, and Curriculum/ Course Structure as suggested by AICTE are followed.
  - 3.2.2. **Credit Courses:** All Subjects/ Courses are to be registered by a student in a Semester to earn Credits. Credits shall be assigned to each Subject/ Course in a L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) Structure, based on the following general pattern
    - One Credit - for One hour/ Week/ Semester for Theory/Lecture (L) Courses; and,
    - One Credit - for Two hours/ Week/ Semester for Laboratory/ Practical (P) Courses or Tutorials (T).

Other student activities like NCC, NSS, Study Tour, Guest Lecture etc., and identified Mandatory / Audit Courses will not carry Credits.

### 3.2.3 Subject/ Course Classification:

All Subjects/ Courses offered for the UGP are broadly classified as:

- (a) Foundation Courses (FC),
- (b) Core Courses (CC),
- (c) Elective Courses (EC),
- (d) Mandatory Courses (MC),
- (e) Audit Courses (AC)

- **Foundation Courses (FC)** are further categorized as:
  - (i) Humanities and Social Sciences (HS)
  - (ii) Basic Sciences (BS)
  - (iii) Engineering Sciences (ES).
- **Core Courses (CC) and Elective Courses (EC)** are categorized as Professional Subjects (PS), which are further subdivided as –
  - (i) Professional/ Departmental Core (PC) Subjects,
  - (ii) Professional/ Departmental Electives (PE),
  - (iii) Open Electives (OE);
  - (iv) Project Related (PR).
- **Mandatory Courses (MC - Non-credit with evaluation).**
- **Audit Courses (AC – Non- credit without evaluation).**

**3.2.4 Course Nomenclature:** The Curriculum Nomenclature or Course-Structure Grouping for the each of the UGP in E&T (B.Tech. Degree Programmes), is as listed below (along with AICTE specified % Range of Total Credits)

Sl. No.	Classification		Course Work – Subject Area	as per AICTE
	AICTE	UGC		
1	HS	Foundation Courses	Humanities and Social sciences including English, Environmental Sciences and Management subjects	5- 10 %
2	BS		Basic Sciences (BS) including Mathematics, Physics, Chemistry.	15- 20%
3	ES		Engineering sciences (ES), including Engineering Workshop, Engineering Graphics, Basics of Electrical Electronics / Mechanical / Computer Engineering	15 – 20%
4	PC	Core Courses	Professional Core subjects are relevant to the chosen specialization/branch; (May be split into Hard (no choice) and Soft (with choice), if required.	30 – 40%
5	PR	Project Related	Minor and Major Projects, Technical Seminar and comprehensive viva-voce.	10 – 15%
6	PE	Professional Electives	Professional Electives are relevant to the chosen specialization/ branch;	10– 15 %
7	OE	Open Electives	Open Electives are the courses from other technical and/or emerging subject areas	5 – 10 %
8	MC	Mandatory Courses	These courses are non-credit courses with evaluation.	-
9	AC	Audit Courses	These courses are non-credit courses without evaluation	-
10	MiC	Minor Courses	These are one or two credit courses intended to improve the skills of the student in placements and entrepreneurship.	-

#### 4. Course Work:

- 4.1. A student, after securing admission, shall pursue the B.Tech. UGP in a minimum period of 4 Academic Years, and a maximum period of 8 Academic Years (starting from the Date of Commencement of I year course work). Further 2 years of extension is allowed for appearing examinations.
- 4.2. Each student shall register for and secure the specified number of Credits required for the completion of the UGP and Award of the B.Tech. Degree in respective Branch of Engineering.
- 4.3. Total number of credits to be secured are 184 out of 184 for the entire B.Tech. Programme.

#### 5. Course Registration:

- 5.1. A 'Faculty Advisor or Counsellor' shall be assigned to each student, who will advise him on the Under Graduate Programme (UGP), its Course Structure and Curriculum, Choice / Option for Subjects / Courses, based on his competence, progress, pre-requisites and interest.
- 5.2. Academic section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work for the semester.
- 5.3. If the student submits ambiguous choices or multiple options or erroneous entries during registration for the Subject(s) / Course(s) under a given specified Course / Group / Category as listed in the course structure, only the first mentioned Subject / Course in that category will be taken into consideration.
- 5.4. **Open Electives:** A student has to complete 3 Open Electives during the period of UGP. The students have to choose only one open elective in a semester from III year I semester onwards from the given list. However, the student cannot opt for an open elective subject offered by their own (parent) department, if it is already listed under any category of the subjects offered by parent department in any semester.
- 5.5. **Professional Electives:** A student has to complete 6 Professional Electives during the period of UGP. Students have to choose professional electives from III year I semester onwards from the list of professional electives offered by their departments.
- 5.6. For Audit Courses like Sports / Yoga and NSS, Computational Mathematics Lab, MOOC/NPTEL online courses etc, a '**Satisfactory Participation Certificate**' from the authorities concerned for the relevant semester is essential. No Marks or Credits shall be awarded for these activities.
- 5.7. For Mandatory Courses, a '**Satisfactory / Not Satisfactory**' grade is awarded based on the performance in both CIE and SEE.

#### 6. Elective Subjects/ Courses to be offered:

- 6.1. An Elective Subject/ Course may be offered to the Students, ONLY IF a Minimum of 40 Students opt for the same. The Maximum Strength of a Section is limited to 75.
- 6.2. If more entries for Registration of a Subject come into picture, then the concerned Head of the Department shall take necessary action, whether to offer such a Subject/ Course for TWO (or multiple) SECTIONS or NOT.
- 6.3. In case of options coming from Students of other Departments/ Branches/ Disciplines (not considering OPEN ELECTIVES), PRIORITY shall be given to the student of the 'Parent Department' first.

## 7. Attendance Requirements:

- 7.1. A student shall be eligible to appear for the Semester End Examinations, if he acquires a minimum of 75% of attendance in aggregate of all the Subjects/ Courses (excluding Non-Credit Courses) for that Semester.
- 7.2. Condoning of shortage of attendance in aggregate up to 10% (65% and above, and below 75%) in each Semester may be granted by the College Academic Committee on genuine and **valid grounds such as Medical, NSS, Sports and Games**, based on the student's representation with supporting evidence.
- 7.3. A stipulated fee shall be payable towards condoning of shortage of attendance.
- 7.4. Shortage of Attendance below 65% in aggregate shall in NO case be condoned.
- 7.5. Students, whose shortage of attendance is not condoned in any Semester, are not eligible to register their Semester End Examinations, they get detained and their registration for that Semester shall stand cancelled. They will not be promoted to the next Semester. They may seek re-registration for all those Subjects registered in that Semester in which he got detained, by seeking re-admission for that Semester as and when offered; in case if there are any Professional Electives and/ or Open Electives, the same may also be **re-registered** if offered, however, if those Electives are not offered in later Semesters, then alternate Electives may be chosen from the **same** set of Elective Subjects offered under that category.

## 8. Academic Requirements:

The following Academic Requirements have to be satisfied, in addition to the Attendance Requirements mentioned in Item No.7.

- 8.1. A student shall be deemed to have satisfied the Academic Requirements and earned the Credits allotted to each Subject/ Course, if he secures not less than 40% marks (24 out of 60 marks) in the Semester End Examination, and a minimum of 40% of the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) marks taken together (i.e. 40 marks); in terms of Letter Grades, this implies securing P Grade or above in that Subject/ Course.
- 8.2. A student shall be deemed to have satisfied the Academic Requirements and earned the Credits allotted to – Minor Project/Technical Seminar/Major Project, if he secures not less than 40% of the total marks to be awarded for each. The student would be treated as failed, if he - (i) does not submit a report on his Minor Project / Technical Seminar / Major Project, or does not make a presentation of the same before the Evaluation Committee as per schedule, or (ii) secures less than 40% of marks in Minor Project/ Technical Seminar/Major Project evaluations.  
He may reappear once for each of the above evaluations, when they are scheduled again; if he fails in such '**one-reappearance**' evaluation also, he has to reappear for the same in the next subsequent Semester, as and when it is scheduled.

### 8.3. Promotion Rules:

Every Student has to fulfil the Attendance and Academic Requirements by securing the required credits as shown below:

S.No.	Semester		Requirement
	From (Even)	To (Odd)	
1	II	III	50% of registered credits are required upto II Semester, from all the relevant regular and supplementary examinations, whether he takes those examinations or not.
2	IV	V	60% of registered credits are required upto IV Semester, from all the relevant

			regular and supplementary examinations, whether he takes those examinations or not.
3	VI	VII	60% of registered credits are required upto VI Semester, from all the relevant regular and supplementary examinations, whether he takes those examinations or not.

**Note: The “Gender Sensitization” course credits are not be considered for promotion rules from II Year to III Year and III Year to IV Year.**

- 8.4. A Student shall - register for all Subjects covering 184 Credits as specified and listed (with the relevant Course/ Subject Classifications as mentioned) in the Course Structure, put up all the Attendance and Academic requirements for 184 Credits securing a minimum of P Grade (Pass Grade) or above in each Subject, and ‘earn all 184 Credits securing SGPA  $\geq$  5.0 (in each Semester), and CGPA (at the end of each successive Semester)  $\geq$  5.0, to successfully complete the UGP.
- 8.5. After securing the necessary 184 Credits as specified for the successful completion of the entire UGP, an exemption of 6 secured Credits (in terms of two of their corresponding Subjects/Courses) may be permitted for optional drop out from these 184 Credits earned; resulting in 178 Credits for UGP performance evaluation, i.e., the performance of the Student in these 178 Credits shall alone be taken into account for the calculation of ‘the final CGPA (at the end of UGP, which takes the SGPA of the VIII Semester into account)’ , and shall be indicated in the Grade Card of VIII Semester; however, the Student’s Performances in the earlier individual Semesters, with the corresponding SGPA and CGPA for which already Grade Cards are given, will not be altered. **Further, optional drop out for such 6 secured Credits shall be allowed only for professional and open electives.**
- 8.6. If a student registers for some more ‘Extra Subjects’ (in the parent Department or other Departments/Branches of Engg.) other than those listed Subjects totaling to 184 Credits as specified in the Course Structure of his Department, the performances in those ‘extra Subjects’ (although evaluated and graded using the same procedure as that of the required 184 Credits) will not be taken into account while calculating the SGPA and CGPA. For such ‘extra Subjects’ registered, % marks and Letter Grade alone will be indicated in the Grade Card, as a performance measure, subject to completion of the Attendance and Academic Requirements as stated in Items 7 and 8.1 to 8.5 above.
- 8.7. When a student is detained due to shortage of attendance in any Semester, he may be re-admitted into that Semester, as and when offered, with the Academic Regulations of that Batch into which he gets readmitted. However, no Grade Allotments or SGPA/ CGPA calculations will be done for that entire Semester in which he got detained.
- 8.8. When a student is detained due to lack of Credits in any year, he may be readmitted in the next year, after fulfilment of the Academic Requirements, with the Academic Regulations of that Batch into which he gets readmitted.
- 8.9. A student eligible to appear in the Semester End Examination in any Subject/ Course, but absent at it or failed (thereby failing to secure P Grade or above), may reappear for that Subject/ Course at the supplementary examination as and when conducted. In such cases, his Internal Marks (CIE) assessed earlier for that Subject/Course will be carried over, and added to the Marks to be obtained in the SEE supplementary examination, for evaluating his performance in that Subject.



## 9. Evaluation - Distribution and Weightage of Marks:

The performance of a student in each Semester shall be evaluated Subject-wise (irrespective of Credits assigned) with a maximum of 100 marks for Theory or Practical or Seminar or Drawing/Design or Minor Project etc. For all Subjects/ Courses, the distribution shall be 40 marks for CIE, and 60 marks for the SEE inclusive of mandatory courses. However, the B.Tech. Major Project will be evaluated for 200 Marks. This evaluation shall be based on 20% CIE and 80% SEE, and a Letter Grade corresponding to the % marks obtained shall be given. Students have to choose Open Electives from the given list. However, students should not choose an Open Elective offered by their own (parent) department, if it is already listed under any category of the courses offered by the parent department in any semester.

### 9.1 Theory Courses:

#### 9.1.1. Continuous Internal Evaluation (CIE):

- During the Semester, there shall be 2 mid-term examinations for 40 marks each. Each mid-exam will be conducted for two and half modules of the syllabus.
- Each mid-term examination consists of objective paper for 10 marks, subjective paper for 25 marks and 5 marks for Assignment.
- Objective paper comprises of 10 multiple choice questions, each for 1 mark. Subjective paper shall contain 5 questions, each for 5 marks, with an internal choice in each question.
- The Course Faculty sets the internal assessment question paper for the respective course, with Course Outcome mapping, Bloom's Taxonomy format for subjective questions.
- Internal Assessment answer paper is evaluated by the faculty and is shared with the students for verification.
- The average of two mid-term examinations will be considered as the final marks secured by the Student towards CIE in that Theory Subject.

#### Assignments

- Assignment should be submitted before the conduct of Internal Assessment Examinations. Assignment topics are prepared for each course based on the course objectives. The assignments submitted are assessed towards course outcomes.

#### 9.1.2. Semester End Examination (SEE):

SEE is for 60 marks, the distribution for which is given below:

Type of Questions	No. of Questions to be answered	Marks per question	Total
Internal Choice Questions (One from each module)	5	12	60
<b>Grand Total</b>			<b>60</b>

## **9.2. Practical Courses:**

### **9.2.1. Continuous Internal Evaluation (CIE):**

For practical subjects there shall be a continuous evaluation CIE for 40 marks, and 60 marks for SEE. Out of the 40 marks in CIE, 15 marks for performance and write up in internal exam and 5 marks for viva voce and 20 marks for day-to-day evaluation in the laboratory, which will be evaluated by the concerned lab faculty.

### **9.2.2 Semester End Examination (SEE):**

The end semester examination shall be conducted by an external examiner and the concerned lab faculty. The external examiner shall be appointed from any autonomous/reputed institutions from a panel of three examiners submitted by the concerned Head of the Department, which are decided by the chief controller of examination of the College.

## **9.3. Design and/or Drawing:**

For the subjects, such as Engineering Graphics, Machine Drawing, Production Drawing Practice, and Estimation, the distribution shall be 40 marks for CIE (20 marks for day-to-day work, 20 marks for internal test with duration of 120 minutes. There shall be two internal tests in a Semester and the average of the marks obtained in the two shall be the marks awarded for internal tests. The SEE will be evaluated for 60 marks.

## **9.4. Gender Sensitization:**

It is treated as a Lab subject (Student Centered) with Internal Assessment for two credits. The Internal assessment for 50 marks shall be awarded with a distribution of 10 marks for Attendance, 10 marks for Assignment and 30 marks for Mini Project (at the end of the course).

Since this is a valueadded course, the name of the course may be reflected in the Marks Memo. Final result will be Satisfactory/Not Satisfactory based on the marks obtained in the Internal Evaluation. Marks obtained in the course will not be included in the aggregate marks for the award of the degree. 40% marks should be obtained to get a satisfactory grade.

## **9.5. Projects:**

### **9.5.1. Minor Project:**

Minor Project has to be taken up for eight weeks including summer vacation after VI semester. CIE of 40 marks are awarded based on the performance in two presentations and SEE of 60 marks will be evaluated by a committee consisting of Head of the Department, supervisor and an external examiner. The external examiner should be selected from outside the College among the autonomous/reputed institutions from a panel of three examiners submitted by the concerned Head of the Department. The Minor Project shall be evaluated in the VII Semester.

### 9.5.2. **Major Project:**

Major Project has to be carried out during the VIII semester, as per the instructions of the project supervisor assigned by the Head of the Department. Out of total 100 marks allotted for the major project, 40 marks shall be for **CIE** (Continuous Internal Evaluation) and 60 marks for the **SEE** (Semester End Viva-voce Examination). CIE marks shall be awarded by a Departmental Committee consisting of project coordinator, Supervisor of Major Project and a senior Faculty member, from two reviews (average). Review - I will be conducted within a month from the commencement of class work (problem definition, objective, literature survey and brief description - each 10 marks) and Review - II will be conducted before second midexamination (progress of work, results, discussion and presentation - each 10 marks). The Major Project Viva-voce (SEE) shall be conducted by a committee comprising of an External Examiner, Head of the Department and Project Supervisor. In SEE of 60 marks, 15 marks for working model / simulation / data collection, 15 marks for report preparation and 30 marks for presentation and viva - voce. The external examiner should be selected by Chief Controller of Examinations from outside the college among the autonomous / reputed institutions from a panel of three examiners submitted by the concerned Head of the Department / Board of Studies (BOS) Chairman.

### 9.6. **Technical Seminar:**

For Technical Seminar Presentation, the student shall collect the information on a specialized topic relevant to B.Tech specialization, prepare a Technical Report and submit to the Department at the time of Seminar Presentation.

The Seminar Presentation (along with the Technical Report) shall be evaluated by a committee consisting of Head of the Department and Two Faculty Members for 100 marks. There shall be no external evaluation.

### 9.7. **Comprehensive Viva-Voce:**

The Comprehensive Viva-Voce shall be conducted in VIII Semester for 100 marks. This Viva-Voce is intended to assess the students' understanding of various subjects studied during the B. Tech. programme of study and will be evaluated by a Committee, consisting of the Head of the Department and two senior faculty members. There shall be no external evaluation.

### 9.8. **Non-Credit Courses:**

#### 9.8.1. **Audit Courses:**

For Audit Courses offered in any Semester, a '**Satisfactory Participation Certificate**' shall be issued to the Student from the concerned authorities, only after securing  $\geq 65\%$  attendance in such a Course. No marks or Letter Grade shall be allotted for these activities.

### 9.8.2. Mandatory Courses:

For Mandatory Non-Credit Courses offered in any semester, a ‘Satisfactory / Not Satisfactory’ shall be awarded to the student based on the performance in both CIE and SEE.

## 10. Grading Procedure

10.1. Marks will be awarded to indicate the performance of each student in each Theory Subject, or Lab/ Practical, or Seminar, or Project, or Minor-Project or Minor Course etc., based on the % marks obtained in CIE + SEE (Continuous Internal Evaluation + Semester End Examination, both taken together) as specified in Item 9 above, and a corresponding Letter Grade shall be given.

10.2. As a measure of the student’s performance, a 10-point Absolute Grading System using the following Letter Grades (UGC Guidelines) and corresponding percentage of marks shall be followed

% of Marks	Grade Points	Letter Grade
≥80	10	O ( Out Standing)
≥70 to < 80	9	A <sup>+</sup> (Excellent)
≥60 to < 70	8	A (Very Good)
≥55 to < 60	7	B <sup>+</sup> (Good)
≥50 to < 55	6	B ( Above Average)
≥45 to < 50	5	C (Average)
≥40 to < 45	4	P (Pass)
< 40	0	F (Fail)
Absent	Ab	Ab

10.3. A student obtaining F Grade in any Subject shall be considered ‘Failed’ and will be required to reappear as ‘Supplementary Candidate’ in the Semester End Examination (SEE), as and when conducted. In such cases, his Internal Marks (CIE Marks) in those Subject(s) will remain same as those he obtained earlier.

10.4. A Letter Grade does not imply any specific % of Marks.

10.5. In general, a student shall not be permitted to repeat any Subject/ Course (s) only for the sake of ‘Grade Improvement’ or ‘SGPA/ CGPA Improvement’. However, he has to repeat all the Subjects/ Courses pertaining to that Semester, when he is detained (as listed in Items 8.10- 8.11).

10.6. A student earns Grade Point (GP) in each Subject/ Course, on the basis of the Letter Grade obtained by him in that Subject/ Course (excluding Mandatory non-credit Courses). Then the corresponding ‘Credit Points’ (CP) are computed by multiplying the Grade Point with Credits for that particular Subject/ Course.

### **Credit Points (CP) = Grade Point (GP) x Credits ... For a Course**

10.7. The student passes the Subject/ Course only when he gets  $GP \geq 4$  (P Grade or above).

10.8. The Semester Grade Point Average (SGPA) is calculated by dividing the Sum of Credit Points ( $\sum CP$ ) secured from ALL Subjects/ Courses registered in a Semester, by the Total Number of Credits registered during that Semester. SGPA is rounded off to TWO Decimal Places. SGPA is thus computed as

$$SGPA = \frac{\{\sum_{i=1}^N C_i G_i\}}{\{\sum_{i=1}^N C_i\}} \dots \text{for each Semester}$$

where ‘i’ is the Subject indicator index (takes into account all Subjects in a Semester), ‘N’ is the no. of Subjects ‘REGISTERED’ for the Semester (as specifically required and listed under the Course Structure of the parent Department), is the no. of Credits allotted to the  $i^{\text{th}}$  Subject, and represents the Grade Points (GP) corresponding to the Letter Grade awarded for that  $i^{\text{th}}$  Subject.

10.9. The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over all Semesters considered for registration. The CGPA is the ratio of the Total Credit Points secured by a student in ALL registered Courses in ALL Semesters, and the Total Number of Credits registered in ALL the Semesters. CGPA is rounded off to TWO Decimal Places. CGPA is thus computed from the II Semester onwards, at the end of each Semester, as per the formula

$$CGPA = \frac{\{\sum_{j=1}^M C_j G_j\}}{\{\sum_{j=1}^M C_j\}} \dots \text{for all } S \text{ semesters registered}$$

(i.e., upto and inclusive of S semesters,  $S \geq 2$ )

where 'M' is the TOTAL no. of Subjects (as specifically required and listed under the Course Structure of the parent Department) the Student has 'REGISTERED' from the 1<sup>st</sup> Semester onwards upto and inclusive of the Semester S (obviously  $M > N$ ), 'j' is the Subject indicator index (takes into account all Subjects from 1 to S Semesters), is the no. of Credits allotted to the j<sup>th</sup> Subject, and represents the Grade Points (GP) corresponding to the Letter Grade awarded for that j<sup>th</sup> Subject. After registration and completion of I Year I Semester however, the SGPA of that Semester itself may be taken as the CGPA, as there are no cumulative effects.

10.10. For Merit Ranking or Comparison Purposes or any other listing, ONLY the 'ROUNDED OFF' values of the CGPAs will be used.

10.11. For Calculations listed in Item 10.6 – 10.10, performance in failed Subjects/ Courses (securing F Grade) will also be taken into account, and the Credits of such Subjects/Courses will also be included in the multiplications and summations. However, Mandatory Courses will not be taken into consideration.

**10.12. Passing Standards:**

10.12.1. A student shall be declared successful or 'passed' in a Semester, only when he gets a SGPA  $\geq 5.00$  (at the end of that particular Semester); and a student shall be declared successful or 'passed' in the entire UGP, only when he gets a CGPA  $\geq 5.00$ ; subject to the condition that he secures a GP  $\geq 4$  (P Grade or above) in every registered Subject/ Course in each Semester (during the entire UGP) for the Degree Award, as required.

10.12.2. In spite of securing P Grade or above in some (or all) Subjects/ Courses in any Semester, if a Student receives a SGPA  $< 5.00$  and/ or CGPA  $< 5.00$  at the end of such a Semester, then he 'may be allowed' (on the 'specific recommendations' of the Head of the Department and subsequent approval from the Principal) - (i) to go into the next subsequent Semester (subject to fulfilling all other attendance and academic requirements as listed under Items 7&8); (ii) to 'improve his SGPA of such a Semester (and hence CGPA) to 5.00 or above', by reappearing for ONE or MORE (as per Student's choice) of the same Course(s) in which he has secured P Grade(s) in that Semester, at the Supplementary Examinations to be held in the next subsequent Semester(s). In such cases, his Internal Marks (CIE Marks) in those Subject(s) will remain same as those he obtained earlier. In these considerations, the newly secured Letter Grades will be recorded and taken into account for calculation of SGPA and CGPA, only if there is an improvement.

10.12.3. A Student shall be declared successful in any Non-Credit Course, if he secures a 'Satisfactory Participation Certificate' for that Audit Course and "Satisfactory Certificate' for Mandatory Course.

10.13. After the completion of each Semester, a Grade Card or Grade Sheet (or Transcript) shall be issued to all the Registered Students of that Semester, indicating the Letter Grades and Credits earned. It will show the details of the Courses Registered (Course Code, Title, No. of Credits, and Grade Earned etc.), Credits earned, SGPA, and CGPA.

## 11. Declaration of Results

- 11.1. Computation of SGPA and CGPA are done using the procedure listed in 10.6 – 10.10.
- 11.2. For Final % of Marks equivalent to the computed final CGPA, the following formula may be used ...

$$\% \text{ of Marks} = (\text{final CGPA} - 0.5) \times 10$$

## 12. Award of Degree

- 12.1. A Student who register for all the specified Courses as listed in the Course Structure, satisfies all the Course Requirements, passes all the examinations prescribed in the entire UG Programme (UGP) within the specified period (refer 4.1), and secures the required number of 184 Credits (with CGPA  $\geq 5.0$ ), shall be declared to have 'QUALIFIED' for the Award of the B.Tech. Degree in the chosen Branch of Engineering as selected at the time of Admission.
- 12.2. A Student who qualifies for the Award of the Degree as listed in Item 12.1, shall be placed in the following Classes:

Class Awarded	CGPA
First Class with Distinction	$\geq 8.00$
First Class	$\geq 6.50$ and $< 8.00$
Second Class	$\geq 5.50$ and $< 6.50$
Pass Class	$\geq 5.00$ and $< 5.50$

- 12.3. A student with final CGPA (at the end of the UGP)  $< 5.00$  will not be eligible for the Award of the Degree.

## 13. Withholding of Results

If the student has not paid fees to College at any stage, or has pending dues against his name due to any reason whatsoever, or if any case of indiscipline is pending against him, the result of the student may be withheld, and he will not be allowed to go into the next higher Semester. The Award or issue of the Degree may also be withheld in such cases.

## 14. Transitory Regulations

Student who has discontinued for any reason, or has been detained for want of attendance or lack of required credits as specified, or who has failed after having undergone the Degree Programme, may be considered eligible for readmission to the same Subjects/ Courses (or equivalent Subjects/Courses, as the case may be), and same Professional Electives/ Open Electives (or from set/category of Electives or equivalents suggested, as the case may be) as and when they are offered (within the time-frame of 8 years from the Date of Commencement of his I Semester).

## 15. Student Transfers

There shall be no Branch transfers after the completion of Admission Process.

## 16. Scope

- i. Where the words "he", "him", "his", occur in the write-up of regulations, they include "she", "her", "hers".
- ii. Where the words "Subject" or "Subjects", occur in these regulations, they also imply "Course" or "Courses".
- iii. The Academic Regulations should be read as a whole, for the purpose of any interpretation.
- iv. In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Principal is final.

## Academic Regulations for B.Tech. (Lateral Entry Scheme)

w.e.f the A Y 2016-17

1. Eligibility for award of B. Tech. Degree (LES): The LES students after securing admission shall pursue a course of study for not less than three academic years and not more than six academic years.
2. The student shall register for 140 credits and secure 140 credits with CGPA > 5 from II year to IV year B.Tech. programme (LES) for the award of B.Tech. degree. Out of the 140 credits secured, the student can avail exemption up to 6 credits, that is, one open elective subject and one professional elective subject or two professional elective subjects resulting in 133 credits for B.Tech. programme performance evaluation.
3. The students, who fail to fulfil the requirement for the award of the degree in six academic years from the year of admission, shall forfeit their seat in B.Tech.
4. The attendance requirements of B. Tech. (Regular) shall be applicable to B.Tech.(LES).
5. Promotion Rule:

Sl. No.	Promotion	Conditions to be fulfilled
1	Second year first semester (III Semester) to second year second semester (IV Semester)	Regular course of study of second year first semester (III Semester)
2	Second year second semester (IV Semester) to third year first semester (V Semester).	<b>(i)</b> Regular course of study of second year second semester (IV Semester) <b>(ii)</b> Must have secured at least 60 % credits up to second year second semester (IV Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or
3	Third year first semester (V Semester) to third year second semester (VI Semester)	Regular course of study of third year first semester (V Semester).
4	Third year second semester (VI Semester) to fourth year first semester (VII Semester)	<b>(i)</b> Regular course of study of third year second semester (VI Semester) <b>(ii)</b> Must have secured at least 60 % credits up to third year second semester (VI Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Fourth year first semester (VII Semester) to fourth year second semester (VIII Semester)	Regular course of study of fourth year first semester (VII Semester)

6. All the other regulations as applicable to B. Tech. 4 - year degree course (Regular) will hold good for B. Tech. (Lateral Entry Scheme).

**MALPRACTICES RULES**  
**DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS**

	<b>Nature of Malpractices/Improper conduct</b>	<b>Punishment</b>
	<i>If the candidate:</i>	
<b>1. (a)</b>	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with correlated to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination).	Expulsion from the examination hall and cancellation of the performance in that subject only.
<b>b)</b>	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
<b>2</b>	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.



3	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the examination (including practical's and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidates also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.
4	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.

6	<p>Refuses to obey the orders of the Chief Superintendent/Assistant Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to the person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.</p>	<p>In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police cases registered against them.</p>
7	<p>Leaves the exam hall taking away answer scripper intentionally tears of the script or any part thereof inside or outside the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.</p>

<b>8</b>	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.
<b>9</b>	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.
<b>10</b>	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
<b>11</b>	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations
<b>12</b>	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action toward suitable punishment.	

**Note:** *The student(s) found indulging in malpractices during the CIE also will be punished based on the recommendations of the College Academic Committee.*