

ACADEMIC REGULATIONS
For
B. Tech. Four Year Degree Programme
(MR13 Regulations)
Effective from the Academic Year 2013-14



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)

Maisammaguda, Dhulapally (Post via. Kompally), Secunderabad - 500100

Academic Regulations for B. Tech. (Regular)

(MR13 Regulations)

Applicable for the students of B. Tech. (Regular) programme from the Academic Year **2013-14** 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 OF THE INSTITUTE

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

MISION OF THE INSTITUTE

- 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. **Award of B. Tech. Degree**

A student will be declared eligible for the award of B. Tech. Degree if he fulfills the following academic regulations:

- 1.1 The candidate shall pursue a course of study for not less than four academic years and not more than eight academic years.
- 1.2 After eight academic years of course of study, the candidate is permitted to write the Examinations for two more years.
- 1.3 The candidate shall register for 224 credits and secure 216 credits with compulsory subjects as listed in Table-1.

Table 1: Compulsory Subjects

Serial Number	Subject Particulars
1	All practical subjects
2	Industry oriented mini project
3	Comprehensive Viva-Voce
4	Seminar
5	Project work

2. The students, who fail to fulfill all the academic requirements for the award of the degree within ten academic years from the year of their admission, shall forfeit their seats in B. Tech. course.

3. **Courses of study**

The following courses of study are offered at present as specializations for the B. Tech. Course:

Branch Code	Branch
1	Civil Engineering (CE)
2	Electrical and Electronics Engineering (EEE)
3	Mechanical Engineering (ME)
4	Electronics and Communication Engineering (ECE)
5	Computer Science and Engineering (CSE)
6	Information Technology (IT)
7	Mining Engineering (Min.E)

4. **Credits**

	I Year		Semester	
	Periods /Week	Credits	Periods /Week	Credits
Theory	03	06	04	04
	02	04	--	--
Practical	03	04	03	02
Drawing	03	06	03	02
			06	04
Mini Project	--	--	--	02
Comprehensive Viva-Voce	--	--	--	02
Seminar	--	--	06	02
Project	--	--	15	10

5. **Distribution and Weightage of Marks**

- 5.1 The performance of a student in each semester or I year shall be evaluated subject-wise for a maximum of 100 marks for a theory and 75 marks for a practical subject. In addition, industry-oriented mini-project, seminar and project work shall be evaluated for 50, 50 and 200 marks, respectively.
- 5.2 For theory subjects the distribution shall be 25 marks for Internal Evaluation and 75 marks for the End- Examination.
- 5.3 For theory subjects, during a semester (or during I Year) there shall be 2 mid-term examinations. Each mid-term examination consists of one objective paper, one subjective paper and one assignment. The objective paper and the subjective paper shall be for 10 marks and 25 marks respectively with a total duration of 1 hour 20 minutes (20 minutes for objective and 60 minutes for subjective paper). The Objective paper is set with 10 multiple choice questions. The subjective paper shall contain 5 questions. For the first mid exam, two questions each from first two units and one question from third unit will be asked. For the second mid exam, one question from third unit and two questions each from last two units (carrying equal weightage) will be asked five (5) marks are allocated for Assignments. The total marks secured by the student in each mid-term examination are evaluated for 25 marks, and the average of the two mid-term examinations shall be taken as the final marks secured by each candidate. The end examination will be conducted for 75 marks, which contains PART A and PART B. Part A for 25 marks contains 5 questions of one mark each and 10 questions of two marks each. Part B is for maximum of 50 marks with 5 questions consisting of internal choice. Each

question in Part B carries 10 marks.

- 5.4 For practical subjects there shall be a continuous evaluation during a semester for 25 sessional marks and 50 end semester examination marks. Out of the 25 marks for internal evaluation, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination shall be evaluated for 10 marks conducted by the laboratory teacher concerned. The end semester examination shall be conducted with an external examiner and internal examiner. The external examiner shall be appointed by the principal / Chief Controller of examinations.
- 5.5 For the subject having design and/or drawing, (such as Engineering Graphics, Engineering Drawing, Machine Drawing) and Estimation, the distribution shall be 25 marks for internal evaluation (15 marks for day-to-day work and 10 marks for internal tests) and 75 marks for end semester examination. There shall be two internal tests in a Semester and the average of the two shall be considered for the award of marks for internal tests.
- 5.6 There shall be an industry-oriented Mini-Project, in collaboration with an industry of their specialization, to be taken up during the vacation after III year II Semester examination. However, the mini-project and its report shall be evaluated along with the project work in IV year II Semester. The industry oriented mini-project shall be submitted in a report form and presented before the committee. It shall be evaluated for 50 marks. The committee consists of an external examiner, head of the department, and the supervisor of the mini-project and a senior faculty member of the department. There shall be no internal marks for industry-oriented mini-project.
- 5.7 There shall be a seminar presentation in IV year II Semester. For the seminar, the student shall collect the information on a specialized topic and prepare a technical report, showing his understanding of the topic, and submit it to the department. It shall be evaluated by the departmental committee consisting of head of the department, seminar supervisor and a senior faculty member. The seminar report shall be evaluated for 50 marks. There shall be no external examination for the seminar.
- 5.8 There shall be a Comprehensive Viva-Voce in IV year II semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of Head of the Department and two Senior Faculty members of the Department. The Comprehensive Viva-Voce is intended to assess the students understanding of the subjects he studied during the B. Tech. course of study. The Comprehensive Viva-Voce is evaluated for 100 marks by the Committee. There are no internal marks for the Comprehensive Viva-Voce.
- 5.9 Out of a total of 200 marks for the project work, 50 marks will be allotted for Internal Evaluation and 150 marks for the End Semester Examination (Viva Voce). The End Semester

Examination of the project work shall be conducted by the same committee as appointed for the industry-oriented mini-project. In addition, the project supervisor shall also be included in the committee. The topics for industry oriented mini project, seminar and project work shall be different from one another. The evaluation of project work shall be made at the end of the IV year II Semester. The Internal Evaluation shall be on the basis of two seminars given by each student on the topic of his project.

5.10 Laboratory marks and the sessional marks awarded by the concerned teacher are subjected to scrutiny and scaling by the Principal / Controller of examinations wherever necessary. In such cases, the sessional and laboratory marks awarded by the concerned teacher will be referred to a Committee headed by principal consisting of HOD, senior professor in that particular department. The Committee will arrive at a scaling factor and the marks will be scaled as per the scaling factor. The recommendations of the Committee are final and binding. The internal test papers including Lab end exam test papers shall be preserved in the exam branch for a minimum period of 6 years from the commencement of the batch, as per the University norms and shall be produced to the Committees as and when the same are asked for.

6. **Attendance Requirements**

6.1 A student shall be eligible to appear for End examinations only if he acquires a minimum of 75% of attendance in aggregate of all the subjects.

6.2 Shortage of Attendance below 65% in aggregate shall in NO case be condoned.

6.3 Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester or I year may be granted by the College Academic Committee

6.4 A student will not be promoted to next semester unless he satisfies the attendance requirement of the present semester / first year as applicable.

6.5 A student who is short of attendance in semester / I year may seek re-admission into that semester/I year as and when offered within 4 weeks from the date of the commencement of class work.

6.6 Students whose shortage of attendance is not condoned in any semester/I year are not eligible to write their end semester examination of that class and their registration Stands cancelled.

6.7 A stipulated fee shall be payable towards condonation of shortage of attendance.

6.8 A student will be promoted to the next semester if he satisfies the attendance requirement of the present semester/I year, as applicable, including the days of attendance in sports, games, NCC and NSS activities.

6.9 If any candidate fulfills the attendance requirement in the present semester or I year, he shall not be eligible for readmission into the same class.

7. **Minimum Academic Requirements**

The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no.6.

7.1 A student is deemed to have satisfied the minimum academic requirements if he has earned the credits allotted to each theory/practical design/drawing subject/project and secures not less than 35% of marks in the end semester exam, and minimum 40% of marks in the sum total of the mid-term and end semester exams.

7.2 A student shall be promoted from first year to second year if he fulfills the minimum attendance requirement.

7.3 A student shall be promoted from II to III year only if he fulfills the academic requirement of 34 credits from

- a. One regular and one supplementary examination of I year
 - b. One regular examination of II year I semester
- (or)

44 credits from

- a. one regular and two supplementary examinations of I year,
- b. one regular and one supplementary examination of II year I semester
- c. one regular of II year II semester.
- d. Or as suggested by affiliating by University from time to time.

7.4 A student shall be promoted from III year to IV year only if he fulfills the academic requirements of 56 credits from the following examination, whether or not the candidate takes the examinations and secures prescribed minimum attendance in III year II semester.

- a. Two regular and two supplementary examinations of I year.
- b. Two regular and one supplementary examinations of II year I semester.
- c. One regular and one supplementary examinations of II year II semester.
- d. One regular examination of III year I semester

7.5 A student shall register and put up minimum attendance in all 224 credits and earn 216 credits. Marks obtained in the best 216 credits shall be considered for the calculation of percentage of marks.

7.6 Students who fail to earn 216 credits as indicated in the course structure within ten academic years (8 years of study + 2 years additionally for appearing for exams only) from the year of their admission, shall forfeit their seat in B.Tech. Course and their admission stands cancelled.

8. **Course Pattern**

8.1 The entire course of study is for four academic years. I year shall be on yearly pattern and II,III and IV years on semester pattern.

8.2 A student, eligible to appear for the end examination in a subject, but absent from it or has failed in the end semester examination, may write the exam in that subject during the period

of supplementary exams.

8.3 When a student is detained for lack of credits/shortage of attendance, he may be re-admitted into the next semester/year. However, the academic regulations under which he was first admitted shall continue to be applicable to him.

9. **Award of Class**

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B. Tech. Degree, he shall be placed in one of the following four classes:

Class Awarded	% of marks to be secured	From the aggregate marks secured from 216 Credits.
First Class with Distinction	70% and above	
First Class	Below 70 but not less than 60%	
Second Class	Below 60% but not less than 50%	
Pass Class	Below 50% but not less than 40%	

(The marks obtained in internal evaluation and end semester / I year examination shall be shown separately in the memorandum of marks.)

10. **Minimum Instruction Days**

The minimum instruction days for each semester/I year shall be 90/180 days.

11. There shall be no branch transfers after the completion of the admission process

12. Transfer from other colleges will be permitted, as per the rules stipulated by the affiliating University and the State government.

13. **With Holding Of Results**

If the student has not paid the dues, if any, to the college or if any case of indiscipline is pending against him, the result of the student will be withheld and he will not be allowed into the next semester.

His degree will be withheld in such cases.

14. **Transitory Regulations**

14.1 Discontinued, detained, or failed candidates are eligible for readmission as and when next offered.

14.2 After the revision of the regulations, the students of the previous batches will be given two chances for passing in their failed subjects, one supplementary and the other regular. If the students cannot clear the subjects in the given two chances, they shall be given equivalent subjects as per the revised regulations which they have to pass in order to obtain the required number of credits.

14.3 In case of transferred students from other Universities, the credits shall be transferred to MREC (A) as per the academic regulations and course structure of the MREC (A).

15. **General**

- 15.1 Wherever the words he, him, his, occur in the regulations, they include she, her, hers.
- 15.2 The academic regulation should be read as a whole for the purpose of any interpretation.
- 15.3 In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the College Academic Committee is final.
- 15.4 College may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the College Academic Committee.
- 15.5 The students seeking transfer to MREC from various other Universities / Institutions have to pass the failed subjects which are equivalent to the subjects of MREC, and also pass the subjects of MREC which the candidates have not studied at the earlier Institution on their own without the right to sessional marks. Further, though the students have passed some of the subjects at the earlier institutions, if the same subjects are prescribed in different semesters of MREC, the candidates have to study those subjects in MREC in spite of the fact that those subjects are repeated.

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ACADEMIC REGULATIONS FOR B. TECH

(LATERAL ENTRY SCHEME)

(Effective for the students admitted into II year from the Academic year 2015-2016 onwards)

1. Eligibility for award of B. Tech. Degree (LES)

- I. The LES candidates shall pursue a course of study for not less than three academic years and not more than six academic years.
 - II. They shall be permitted to write the examinations for two more years after six academic years of course work.
2. The candidate shall register for 168 credits and secure 160 credits from II to IV year B.Tech. Program (LES) for the award of B.Tech. Degree with compulsory subjects as listed in Table-1

Table 1: Compulsory Subjects

Serial Number	Subject Particulars
1	All practical subjects
2	Industry oriented mini project
3	Comprehensive Viva-Voce
4	Seminar
5	Project work

3. The students, who fail to fulfill the requirement for the award of the degree in 8 consecutive academic years (6 years of study + 2 years additionally for appearing exams only) from the year of admission, shall forfeit their seats.
4. The attendance regulations of B. Tech. (Regular) shall be applicable to B.Tech. (LES).
5. **Promotion Rule**

A student shall be promoted from second year to third year if he fulfills the minimum attendance requirement.

A student shall be promoted from III year to IV year only if he fulfills the academic requirements of 34 credits (out of 84 credits) secured from all Regular and Supplementary examinations conducted up to Third year First semester examination

- a. Two regular and one supplementary examination of II year I semester.
- b. One regular and one supplementary examination of II year II semester.
- c. One regular examination of III year I semester

6. **Award of Class**

After a student has satisfied the requirement prescribed for the completion of the program and is eligible for the award of B. Tech. Degree, he shall be placed in one of the following four classes:

Class Awarded	% of marks to be secured	From the aggregate marks secured from 216 Credits.
First Class with Distinction	70% and above	
First Class	Below 70 but not less than 60%	
Second Class	Below 60% but not less than 50%	
Pass Class	Below 50% but not less than 40%	

(The marks obtained in the internal evaluation and the end semester examination shall be shown separately in the marks memorandum.)

7. 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

	Nature of Malpractices/Improper conduct	Punishment
	<i>If the candidate:</i>	
1. (a)	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)	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.
2	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 his 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 scripser 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>

8	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.
9	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.
10	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.
11	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
12	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.	