



MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)

Kokapet (Village), Gandipet (Mandal), Hyderabad-500 075

Academic Regulations for Four Year B.Tech. Degree Program with effect from the Academic Year 2021 – 2022 (MR-21)

Note:

- i) The academic regulations should be read as a whole, for the purpose of any interpretation
- ii) In case of any doubt or ambiguity in the interpretation of the above rules and regulations, the decision of the Institute is final
- iii) Any reference to the College or Institute in these Regulations stands for Mahatma Gandhi Institute of Technology (Autonomous).

Mahatma Gandhi Institute of Technology (MGIT) established in the year 1997 by Chaitanya Bharathi Educational Society (CBES) was conferred autonomous status by the University Grants Commission, New Delhi and Jawaharlal Nehru Technological University (JNTUH) Hyderabad for a period of 10 years with effect from the academic year 2021-22. Consequently, the Institute is at liberty to prescribe its own courses that determine learning outcomes based on local needs and required skills. Autonomy enables the Institute to promote healthy practices such as community services and extension activities.

Academic independence is the major advantage for an autonomous system

In accordance with the guidelines of the University Grants Commission (UGC), All India Council for Technical Education (AICTE) and Jawaharlal Nehru Technological University (JNTUH), Hyderabad, MGIT introduced the Outcome Based Education (OBE) with Choice Based Credit System (CBCS) in both the undergraduate and post graduate programs offered from the academic year 2021-22.

The credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The choice based credit system provides a “cafeteria” type approach in which the student can take courses and acquire more than the required credits and adopt an interdisciplinary approach to learning.

Choice Based Credit System (CBCS): The choice based credit system enables a student to obtain a degree by accumulating the required number of credits prescribed for

that degree. Under CBCS, the requirement for awarding degree is prescribed in terms of number credits to be completed by the students. The number of credits earned by the student reflects the knowledge acquired by him/her. Each course is assigned with a fixed number of credits based on the contents to be learnt. The student also has the choice in selecting the courses offered by the other Departments. The letter grade, grade points and the credit points earned for each of the course reflect the students proficiency in that course.

1. Eligibility for Admission

Admission to B.Tech. program shall be made either on the basis of the rank obtained by the student in entrance test conducted by the State Government of Telangana (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 State Government from time to time.

2. Medium of Instruction

The medium of instruction shall be English for all courses, examinations, seminar presentations and project work. The program curriculum will comprise courses of study as prescribed in the course structure and in accordance with the prescribed syllabus.

3. B.Tech. Programs offered

MGIT is offering Bachelor of Technology (B.Tech) degree programs in eleven disciplines. The various programs offered are given in table-1.

Table-1. B.Tech. Programs offered

S.No.	Title of the program	Branch Code	Abbreviation
1.	Civil Engineering	01	CE
2.	Electrical and Electronics Engineering	02	EEE
3.	Mechanical Engineering	03	ME
4.	Electronics and Communication Engineering	04	ECE
5.	Computer Science and Engineering	05	CSE
6.	Information Technology	12	IT
7.	Mechanical Engineering (Mechatronics)	14	MCT
8.	Metallurgical and Materials Engineering	18	MME
9.	Computer Science and Business System	32	CSB
10.	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	66	CSM
11.	Computer Science and Engineering (Data Science)	67	CSD

3.1 Structure of B.Tech. Program

The structure of the B.Tech. programs offered at MGIT is based on outcome based education with **Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS)**, in accordance with the guidelines of the UGC and the model curriculum suggested by the AICTE.

The B.Tech. program offered at MGIT follows semester pattern. The duration of B.Tech. program shall be four academic years (eight semesters).

Each academic year shall have two semesters (one odd and one even). Each semester shall have sixteen weeks of instruction excluding examination and evaluation. The academic activities to be performed in an academic year along with their tentative timeframe are listed in the academic calendar given in table-2.

Table-2. Academic calendar

S.No.	Event	Duration
Odd Semester		
1.	First Spell of Instructions	8 Weeks
2.	First Internal Examination	1 Week
3.	Second Spell of Instructions	8 Weeks
4.	Second Internal Examination	1 Week
5.	Semester End Examinations of Mandatory courses, Laboratory courses and preparatory holidays for theory examinations	2 Weeks
6.	Semester End Theory Examinations	2 Weeks
7.	Supplementary Examinations of Even Semesters	2 Weeks
Even Semester		
8.	First Spell of Instructions	8 Weeks
9.	First Internal Examination	1 Week
10.	Second Spell of Instructions	8 Weeks
11.	Second Internal Examination	1 Week
12.	Semester End Examinations of Mandatory courses, Laboratory courses and preparatory holidays for theory examinations	2 Weeks
13.	Semester End Theory Examinations	2 Weeks
14.	Summer Holidays and Supplementary Examinations of Odd Semesters	6 Weeks

Each semester is structured to provide credits totalling to 160 for the entire B.Tech. program. Each semester shall have Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE).

A student who pursues and registers for all the specified courses as listed in the B.Tech. program structure and secures the required number of 160 credits in a normal (minimum) period of four academic years (eight semesters) and a maximum period of eight academic years (sixteen semesters) from the date of commencement of the first semester, shall be declared to have qualified for the award of B.Tech. degree in the chosen branch of engineering selected at the time of admission.

3.2 Credit structure

Every course in the B.Tech. program has a Lecture – Tutorial – Practical or Drawing – Credit (L:T:P/D:C) component. Based on L:T:P/D:C structure, the credits are allotted to a course using the criteria shown in table- 3.

Table - 3. Contact hours and Credit Structure

S. No.	Type of Course	Component	Contact hours / week / semester	Credits
1	Theory	Lecture (L)	1	1
		Tutorial (T)	1	1
2	Laboratory	Practical (P)	1	0.5
3	Drawing	Drawing (D)	1	0.5

Depending on the complexity and volume of the course, the number of contact hours per week in a semester will be assigned.

Each B.Tech. program shall consist of a number of courses and each course shall be assigned with credits. The curriculum shall comprise theory courses, elective courses, laboratory courses, mandatory courses, seminar, mini – project, internship, and project work. However, mandatory courses do not carry any credits.

In accordance with the guidelines issued by UGC and AICTE, all the courses offered for the under graduate program are broadly classified as shown in table-4.

Table - 4. Classification of Courses

S.No.	Broad Course Classification	Course Group / Category	Course Description
1.	Foundation Courses (FC)	Basic Sciences (BS)	Mathematics, Physics and Chemistry
2.		Humanities and Social Sciences including Management (HS)	Courses related to Humanities, Social Sciences and Management
3.		Engineering Sciences (ES)	Fundamental Engineering Courses
4.	Core Courses (CC)	Professional Core (PC)	Core courses related to the parent Discipline / Department / Branch of

			Engineering
		Project work	Project in stage I and stage II
		Industrial Training / Mini- Project	Industrial training internship/ industry oriented Project / Mini – Project
		Seminar	Seminar / Colloquium based on core content related to the parent Discipline / Department / Branch of Engineering
5.	Elective courses (EC)	Professional Electives (PE)	Elective courses related to the parent Discipline / Department / Branch of Engineering
		Open Electives (OE)	Interdisciplinary courses or courses in an area outside the parent Discipline / Department / Branch of Engineering
6.	Mandatory Courses (MC)	-	Environmental Science, Constitution of India Intellectual Property Rights, Gender Sensitization, Artificial Intelligence and Cyber Security

4. Course Registration

The following guidelines are designed for course registration:

- 4.1 A faculty member shall be appointed as a mentor for a group of 20 students, who will advise the students about the B.Tech. program, its course structure, curriculum, choice option for courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The students shall register for all the prescribed courses and additional courses if any (limited to 4 credits) at the beginning of each semester as per the schedule mentioned in the Almanac released in the beginning of the academic year. Additional courses will be offered based on progress, SGPA / CGPA and fulfillment of the pre- requisites, if any for the course.
- 4.3 The registration shall be organized by the Department or the Academic Section of the Institute.
- 4.4 A course may have one or more of its preceding course(s) as pre-requisite(s).
- 4.5 The academic section of the Institute invites “registration forms” from students before the beginning of the semester through ‘on-line registration’ ensuring “date and time stamping”. The on-line requests for any given semester shall be completed before the commencement of Semester End Examinations (SEE) of the preceding semester.
- 4.6 A student can apply for on-line registration, only after obtaining the written approval of his / her mentor, which should be submitted to the Academic Section of the Institute

through the Head of the Department concerned. A copy of it shall be retained with Head of the Department, mentor and the student.

4.7 Course options exercised by the students through on-line registration are final and cannot be changed or interchanged. Further, alternate choices also will not be considered.

However, if the course that has been listed for registration by the Head of the Department in a semester could not be offered due to any unforeseen or unexpected reasons, then the student shall be allowed to have alternate choice for a new course, subject to offering of such a course and availability of seats in it. Such alternate arrangements shall be made by the Head of the Department, with due notification and time framed schedule, within the first week of the commencement of class work for that semester.

5. Open Elective Courses

The students have to choose one open elective each in the V, VI and VII semesters from the list of open elective courses given. However, the student cannot opt for an open elective course offered by the parent Department.

6. Professional Elective Courses

The students have to choose the six professional electives from the list given in the Curriculum.

7. Elective Courses to be offered

7.1 A typical section (or class) strength for each semester shall be 60.

7.2 A course may be offered to the students, only if a minimum of 20 students (1/3 of the class strength) opt for it. The maximum strength of a class shall be limited to 80 (60 + 1/3 of the class strength).

7.3 More than one faculty member may offer the same course in a given semester. Laboratory / Practical may be included with the corresponding theory course in the same semester.

7.4 Allotment of elective courses shall be based on the choice exercised by the students and on **“first come first serve basis”** in the on-line registration mode. In the case of a tie, CGPA criterion shall be used to resolve.

7.5 If more students register for a given elective, then the Head of the Department concerned shall decide, whether or not to offer such a course for multiple sections keeping in view the resources available in the Department.

8. Attendance Requirements

It is desirable for a student to have 100 % attendance in each course. However, a student shall be eligible to appear for the Semester End Examinations, if he / she acquires a minimum of 75 % attendance in aggregate of all the credit courses and mandatory non-credit courses offered. Two periods of attendance for each theory course shall be considered, if he / she appears for the Internal examination of that course.

8.1 Shortage of attendance in aggregate upto 10% i.e. attendance from 65 % to less than 75 % in a semester may be condoned by the Institute Academic Committee on genuine and valid medical grounds, based on student's representation with supportive evidence. Such students shall pay a stipulated fee for condoning shortage of attendance (10 %).

Shortage of attendance below 65 % in aggregate shall in no case be condoned.

8.2 Students whose shortage of attendance is not condoned in any semester are not eligible to appear for Semester End Examinations of that semester. They get detained and their registration for that semester stands cancelled. They need to seek readmission for that semester as and when offered, subject to completion of the program in the **stipulated maximum period of 8 years from the date of admission in to the B.Tech. program.** In such cases, academic regulations applicable to the semester in which readmission is sought, shall be applicable to the readmitted student.

8.3 A student fulfilling the attendance requirement of a given semester is **not** eligible for readmission into that semester.

9. Academic Requirements

In addition to the attendance requirements mentioned in S.No.8, a student must satisfy the following academic requirements:

9.1 A student shall be deemed to have satisfied the academic requirements and earned the credits for each theory, practical or drawing course, if he /she secures not less than 35 % (25 Marks out of 70) in the Semester End Examinations, and a minimum of 40 % (40 Marks out of 100) in the sum total of the SEE and CIE put together. In terms of letter grades, it implies securing 'C' grade or above in that course.

9.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Industry oriented Mini-Project, Project, Internship and Seminar, if he /

she secured a minimum of 40 % marks (40 Marks out of 100) in each of them. The student is deemed to have failed if he / she

- i) does not submit a report on Industry oriented Mini-Project, Project, Internship and Seminar
- ii) does not make a presentation of the same before the Evaluation Committee as per the schedule or
- iii) secures less than 40 % marks in evaluation

In such a case, the student may re-appear for evaluation in the next semester as and when it is scheduled.

9.3 To qualify for the award of degree in B.Tech. program, a student shall

- i) register for all courses covering 160 credits specified and listed in the course structure.
- ii) fulfill all the attendance and academic requirements for 160 credits,
- iii) earn all 160 credits by securing Semester Grade Point Average (SGPA) ≥ 5.0 in each semester, and Cumulative Grade Point Average (CGPA) ≥ 5.0 at the end of each successive semester and
- iv) pass all the mandatory courses, though the performance in these courses is not considered for computing SGPA and CGPA.

9.4 If a student fails to secure a pass ('C' grade) in a given course or absent from it, he / she shall reappear for that course and secure a minimum of 'C' grade in the subsequent supplementary Semester End Examinations as and when conducted. In such cases, CIE marks secured earlier for that course will be carried over, and added to the marks to be obtained in the supplementary Semester End Examination for evaluating performance in that course.

9.5 A student detained in a semester due to shortage of attendance may seek readmission in the same semester in the next academic year for fulfillment of academic requirements. The academic regulations applicable to the semester in which readmission is sought shall be applicable to the readmitted student.

9.6 A student detained due to lack of credits shall be promoted to the next academic year only after acquiring the required academic credits. The academic regulations applicable to the semester in which the readmission is sought shall be applicable to him / her.

9.7 If a student fails to secure (i) 160 credits stipulated in the course structure and (ii) minimum 'C' Grade in the mandatory courses within eight academic years starting

from the year of admission shall forfeit his / her seat in the under graduate program and his / her admission stands cancelled.

10. Promotion Rules

A student shall fulfill the requirements mentioned in table-5 for promotion from the current semester to the next semester.

Table-5. Promotion Rules

S.No.	Promotion	Conditions to be fulfilled
1.	From First semester to second semester	Regular course of study of first semester
2.	From second semester to third semester	i)Regular course of study of second semester ii) Must have secured at least 50 % of the total credits (18 credits out of 37 credits) upto second semester from all the relevant regular and supplementary examinations conducted.
3.	From third semester to fourth semester	Regular course of study of third semester
4.	From fourth semester to fifth semester	i)Regular course of study of fourth semester ii) Must have secured at least 60 % of the total credits (47 credits out of 79 credits) upto fourth semester from all the relevant regular and supplementary examinations conducted.
5.	From fifth semester to sixth semester	Regular course of study of fifth semester
6.	From sixth semester to seventh semester	i) Regular course of study of sixth semester ii) Must have secured at least 60 % of the total credits (73 credits out of 123 credits) upto sixth semester from all the relevant regular and supplementary examinations conducted.
7.	From seventh semester to eight semester	Regular course study of seventh semester

11. Evaluation Methodology

The performance of a student in every course will be evaluated for 100 marks each, with 30 marks allotted for Continuous Internal Evaluation (CIE) and 70 marks for Semester End Examination (SEE).

11.1 Continuous Internal Evaluation for Theory courses: 30 Marks

Continuous Internal Evaluation shall be conducted twice in a semester. Each Continuous Internal Evaluation consists of Internal Examination (20 Marks), Assignment (5 Marks) and Quiz on Assignment (5 Marks).

The average of two CIEs shall be taken as final marks secured by the student in Continuous Internal Evaluation.

11.2 Internal Examination Pattern

The first Internal Examination shall be conducted for the first 50 % of the syllabus and second Internal Examination shall be conducted for the remaining 50 % of the syllabus. The duration of the Internal Examination and Quiz on Assignment put together is 90 minutes.

Question paper pattern for Internal examination shall be as follows:

All questions are compulsory in Part-A and Part-B

Part – A: 3 x 2 M = 6 M (one question from each unit without choice)

Part – B: 2 x 6 M and 1 x 2 M = 14 M

There shall be one question from each unit with internal choice in Part-B and there could be sub- questions in a given question.

11.3 Assignment

A student shall submit two assignments in the topics suggested by the teacher. The first assignment shall be submitted before the conduct of the first Internal Examination and the second assignment shall be submitted before the conduct of second Internal examination.

11.4 Quiz on Assignment

There shall be quiz on assignment along with each of the Internal Examinations in a semester. The quiz on assignment shall consist of 10 questions of the type multiple choice questions, fill in the blanks, assertion and reason, match the following and true/false statements.

If any student is absent, due to any extraordinary circumstances, for 1st Internal Examination / 2nd Internal Examination / or both in any course, **only one special examination** will be conducted for 30 Marks for him/her by the Institute after due

verification of the genuineness of the absence by a Committee. Further, in case the student is absent for both the Internal Examinations, 50 % of the marks secured in special examination will be considered as performance of Continuous Internal Evaluation in that course.

11.5 Semester End Examination for Theory Courses: 70 Marks

The Semester End Examination shall be for three hours and **all questions are compulsory**. The question paper consists of Part-A and Part-B.

Part – A: 10 x 2 M = 20 Marks

There shall be two short answer questions from each unit without choice

Part – B: 5 x 10 M = 50 Marks

- i) There shall be one question from each unit with internal choice in Part-B
- ii) There could be sub-questions in a question

11.6 For Engineering Graphics Course, the Semester End Examination shall consist of five questions (5x14=70 Marks) with internal choice. There could be sub-questions in a question without Part-A and Part-B system.

11.7 For Machine Drawing, the Semester End Examination shall consist of two parts viz.

- i) Part-A for 30 marks (3 x 10 M = 30 M).

Three out Four questions must be answered.

- ii) Part-B for 40 marks and is compulsory

There could be sub-questions in a question.

11.8 For the course Estimation, Costing and Project Management, the Semester End Examination shall be as follows:

- i) Part-A: 30 Marks

There shall be one question from Unit –I with internal choice

- ii) Part-B: 10 Marks

There shall be one question from Unit –II with internal choice

- iii) Part-C: 30 Marks

There shall be five questions drawn from Unit –III, IV and V. The student has to answer three out of five questions

- iv) There could be sub-questions in a question of Part-A, Part-B and Part-C.

11.9 For courses like Design of Reinforced Concrete Structures and Steel Structures, the Semester End Examination shall consist of two parts

Part-A: 5 x 2 M = 10 Marks

- i) All the questions are compulsory
- ii) There shall be one question from each unit without choice

Part-B: 5 x 12 M = 60 Marks

- i) All the questions are compulsory
- ii) There shall be one question from each unit with internal choice
- iii) There could be sub-questions in each question

12. Evaluation of Practical Courses

12.1 For practical courses, there shall be a Continuous Internal Evaluation (CIE) during the semester for 30 marks and 70 marks for Semester End Examination (SEE)

12.2 Out of the 30 marks allocated to CIE, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 15 marks

12.3 The Semester End Examination shall be conducted with an external examiner and internal examiner

12.4 For the course having design and/or drawing, (such as engineering graphics, engineering drawing, machine drawing and estimation, costing & project management), the distribution shall be 30 marks for Continuous Internal Evaluation (15 marks for day-to-day work and 15 marks for internal tests) and 70 marks for Semester End 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.

13. Mini-Project

13.1 A student shall carryout an industry oriented mini-project in collaboration with an industry of his/her branch of Engineering

13.2 Students shall register for mini-project immediately after VI semester and pursue it during summer vacation

13.3 The mini-project shall be submitted in a report form and presented in VII semester before the Committee consisting of an External Examiner, Head of the Department, senior faculty of the Department and supervisor of the mini-project

13.4 It shall be evaluated for 100 marks and there shall be no internal marks for the mini-project

14. Seminar

- 14.1 There shall be a seminar presentation by the student in VII semester for 100 Marks. The Evaluation of the seminar shall be conducted in two phases of 50 Marks each.
- 14.2 During the first phase, the student is required to identify the topic in the area of interest, carry out the literature survey and shall make the presentation before the Departmental Committee consisting of Head of the Department, a senior faculty member and seminar supervisor.
- 14.3 During the second phase, the student is required to prepare a technical report (based on first phase), submit it to the Department and shall make a final seminar presentation of the technical report before the Departmental Committee for evaluation.
- 14.4 There shall be no SEE for the seminar.

15. Project

- 15.1 The project work shall be carried out in two stages: Project Stage I during VII semester and Project Stage II during VIII semester. The topic for mini project, seminar and project stage-I shall be different.
- 15.2 The student has to submit project work report at the end of VII and VIII semester and they shall be evaluated for 100 marks each.
- 15.3 Evaluation of Project Stage I and Project Stage II shall consist of both CIE and SEE
- 15.4 CIE (30 marks) for both Project Stage I and Project Stage II shall be evaluated by the project supervisor
- 15.5 CIE shall be done **on the basis of two seminars conducted in VII and VIII semester as per the academic calendar and the evaluation format provided**
- 15.6 Semester End Examination for both project stages shall be completed before the commencement of respective semester end theory examinations
- 15.7 Semester End Examination for Project Stage - I (70 Marks) shall be conducted by the Departmental Committee consisting of Head of the Department, project supervisor and a senior faculty member
- 15.8 Semester End Examination for Project Stage - II (70 Marks) shall be conducted by a Committee consisting of an **external examiner**, Head of the Department, project supervisor and a senior faculty member of the Department
- 15.9 The student is deemed to have failed, if he/she i) does not submit a report on project stage-I/II or does not make a presentation of the same before evaluation committee as

per schedule or ii) secures less than 40 % marks in the sum total of the CIE and SEE taken together.

15.10 A student who has failed in Project Stage – I / II, may reappear for evaluation, when it is scheduled again. If student fails in such reappearance also, he / she has to reappear for the same in the next subsequent semester, as and when conducted.

16. Mandatory Courses

Mandatory courses do not carry any credits. The courses like Environmental Science, Constitution of India, Intellectual Property Rights, Artificial Intelligence and Cyber Security will be evaluated on the lines of theory courses. In the case of Gender Sensitization laboratory the evaluation consists of (i) Discussion & Class Room participation for 20 % (20 Marks), (ii) Project/Assignment for 30 % (30 Marks) and (iii) End Semester Examination for 50 % (50 Marks). A student has to secure minimum of 'C' grade (40 Marks out of 100 in CIE and SEE put together) in each mandatory course to qualify for the Award of B.Tech. Degree. **However, performance of these courses will not be considered for computing Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).**

17. Grading procedure

- Letter grade based on absolute grading system will be awarded to indicate the performance of students in each course
- Under absolute grading, the marks are converted to letter grades based on pre-determined class intervals
- Based on the percentage of marks obtained in CIE and Semester End Examination put together, a corresponding letter grade shall be assigned
- As a measure of the performance of a student, the marks obtained by the student in a given course will be awarded a letter grade and each letter grade has designated grade points
- In accordance with UGC and AICTE guidelines, a 10 point absolute grading system is adopted to measure the performance of a student. The percentage of marks secured in a given course and the corresponding letter grade along with its designated grade points are shown in Table-6.

Table-6. Percentage of Marks, Corresponding Letter Grades and Grade Points

Percentage of Marks secured in a Course	Letter Grade	Grade Points
90 to 100	O (Outstanding)	10
80 to < 90	A+ (Excellent)	9
70 to < 80	A (Very Good)	8
60 to < 70	B+ (Good)	7
50 to < 60	B (Average)	6
40 to < 50	C (Pass)	5
< 40	F (Fail)	0
Not appeared in the examination	Ab (Absent)	0

- A student who has obtained ‘F’ grade in any course shall be deemed to have failed and is required to reappear as a supplementary student in the Semester End Examination as and when conducted
- A student who has not appeared for examination in any course, ‘Ab’ grade will be allocated and is deemed to have failed in that course. Such student will be required to reappear as a ‘supplementary student’ in the Semester End Examination as and when conducted.
- A student earns grade points in each course on the basis of the letter grade secured in that course. The corresponding credit points are computed by multiplying the grade points with credits assigned for that particular course
Credit Points = Grade Points x Credits assigned for a course
- A student passes the course only when grade points are five or more than five (“C” grade or above)

17.1 Computation of the Semester Grade Point Average (SGPA)

- The Semester Grade Point Average (SGPA) indicates the performance of a student in a given semester
- The SGPA is calculated by dividing the total credit points earned by the student in all the courses and the total number of credits assigned to the courses in a semester. Thus, if $\sum cp$ is the sum of credit points secured from all the courses offered in a given semester,

“N” is the number of courses offered in a semester

“I” is the course indicator index (takes into account all courses in a semester),

C_i is the number of credits allotted to the i^{th} course and G_i represents the grade points corresponding to the letter grade awarded for that i^{th} course.

$$SGPA = \frac{\sum_{i=1}^N C_i G_i}{\sum_{i=1}^N C_i}$$

$$SGPA = \frac{\text{Total credit points obtained in a semester}}{\text{Total credits offered in that semester}}$$

SGPA is computed only if the candidate passes (minimum ‘C’ grade) in all the courses offered in a semester

17.2 Computation of the Cumulative Grade Point Average (CGPA)

- The Cumulative Grade Point Average (CGPA) is a measure of the overall performance of a student in all the semesters offered for a given program
- It is the ratio of the total credit points secured by a student in all the courses offered in all the semesters and the total number of credits offered in all the semesters. Thus the CGPA is computed from second semester onwards as per the formula

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

where ‘M’ is the total number of courses offered in all the semesters of the program, j is the course indicator index (taken into account all the courses from I semester to VIII semester)

C_j is the number of credits allotted to the j^{th} course and G_j represents the grade points corresponding to the letter grade awarded for that j^{th} subject

$$CGPA = \frac{\text{Total credit points obtained in all the semesters}}{\text{Total credits for the program}}$$

- The CGPA is same as the SGPA in the first semester of the program
- The CGPA is calculated only when the student passes in all the courses i) upto a given semester and ii) all the semesters of the program.

17.3 Illustration of calculation of SGPA and CGPA

Example 1:

S. No.	Semester	Course Name	Course credits (C)	Letter Grade secured	Grade Points (GP)	Credit Points (CP=C x GP)
1.	I	English	2	A	8	2 x 8 = 16
2.	I	Mathematics-I	4	O	10	4 x 10 = 40
3.	I	Chemistry	4	A+	9	4 x 9 = 36
4.	I	Basic Electrical Engineering	3	B	6	3 x 6 = 18
5.	I	Engineering Workshop	2.5	B+	7	2.5 x 7 = 17.5
6.	I	English Language and Communication Skills lab	1	C	5	1 x 5 = 5
7.	I	Engineering Chemistry lab	1.5	A	8	1.5 x 8 = 12
8.	I	Basic Electrical Engineering Lab	1	A	8	1 x 8 = 8
Total Credits			19	Total Credit Points		152.5

$$\text{SGPA for I Semester} = 152.5 / 19 = 8.02$$

$$\text{CGPA upto I Semester} = 8.02$$

Example 2:

S.No.	Semester	Course Name	Course credits (C)	Letter Grade secured	Grade Points (GP)	Credit Points (CP=C x GP)
1.	II	Mathematics-II	4	A+	9	4 x 9 = 36
2.	II	Applied Physics	4	A	8	4 x 8 = 32
3.	II	Programming for Problem Solving	4	A+	9	4 x 9 = 36
4.	II	Engineering Graphics	3	O	10	3 x 10 = 30
5.	II	Applied Physics Lab	1.5	A	8	1.5 x 8 = 12
6.	II	Programming for Problem Solving Lab	1.5	A	8	1.5 x 8 = 12
7.	II	Environmental Science	0	A	8	0
Total Credits			18	Total Credits Points		158

$$\text{SGPA for II Semester} = 158 / 18 = 8.77$$

$$\text{CGPA upto II Semester} = \frac{(152.5+158)}{(19+18)} = 8.39$$

The above illustrated calculation process of SGPA and CGPA shall be followed for each subsequent semester upto VIII semester

- The CGPA obtained at the end of VIII semester shall be the CGPA secured for entire B.Tech. program
- The SGPA and the CGPA of a semester will be mentioned in the Semester Grade Report if the student passes all the courses offered in that semester in first attempt. Otherwise, the SGPA and the CGPA shall be mentioned on the Semester Grade Report in which sitting the student has passed (completed) last course of that semester.
- Though the performance in mandatory courses is reflected in Semester Grade Report(s), it will not be considered for computing the SGPA and the CGPA
- A student shall be declared successful or 'passed' in a semester, if he/she secures 'C' grade or above in every course in that semester ($SGPA \geq 5.00$) and he / she shall be declared successful or 'passed' in the entire under graduate program, only when he/she gets the $CGPA \geq 5.00$ for the award of degree as required.
- After the completion of a semester, a semester grade report shall be issued to all the registered students of that semester, indicating the letter grades and credits earned in the courses offered.

18. Award of Degree

A student shall be considered qualified for the award of B.Tech. degree if he / she fulfills the following academic regulations:

- Pursued B.Tech. program study for four academic years and not more than eight academic years from the year of admission
- Registered for 160 credits and secured 160 credits ($CGPA \geq 5.00$)
- A student who fails to fulfill the above mentioned academic requirements shall not be eligible for the award of degree
- Indicative percentage of marks equivalent to the computed final CGPA, the following formula may be used.

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

19. Award of Division

A student who qualified for the award of degree shall be placed in the following divisions:

i) First Division with Distinction

A student with $CGPA \geq 8.00$ in VIII semester shall be awarded first division with distinction provided he / she

- **Should have passed all the courses of eight semesters in the first examination conducted for each semester of the batch admitted**
- **Should have secured a CGPA ≥ 8.00 at the end of each of the eight semesters**
- Should not have been detained or prevented from writing the Semester End Examinations in any semester due to shortage of attendance or any other reason
- Students placed in **First division with distinction** alone will be eligible for the award of '**Gold Medal**'

ii) First Division

- A student not fulfilling any of the conditions mentioned above with CGPA ≥ 8.00 in VIII semester shall be placed in First division
- Students with CGPA in the range 6.50 to < 8.00 shall be awarded first division

iii) Second Division

A student with CGPA in the range 5.50 to < 6.50 shall be placed in Second division

iv) Third Division

Student with CGPA in the range 5.00 to < 5.50 shall be placed in Third division (pass division)

20. Withholding of Results

If the student has not paid the tuition fee or has any dues due to any reason whatsoever, or if any case of indiscipline / malpractice is pending, the result will be withheld and the student will not be allowed to pursue the next higher semester. The award or issue of the provisional certificate and the B.Tech. degree is liable to be withheld in such cases.

Student Transfers

- There shall be no branch transfers after the completion of admission process.
- The students seeking transfer from various other institutions / universities have to pass the failed courses which are equivalent to the courses of MGIT and also pass the courses of MGIT which the students have not studied at the earlier institution. Further, though the students have passed some of the courses at the earlier institutions, if the same courses are prescribed in different semesters of MGIT, the students have to study those courses in MGIT inspite of the fact those courses are repeated.

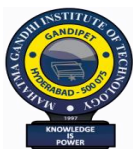
- Exemption will be given in the courses of the semester(s) of the batch which the student has passed earlier and substitute courses will be offered in their place as decided by the Board of Studies, MGIT.
- The student transferred from other institutions / universities will be provided one chance to write the internal examinations in the equivalent course(s) as per the equivalence established by the Institute.

21. Transitory Regulations

- A student who has discontinued or has been detained for want of attendance or any other academic requirements will be considered for readmission as and when he /she becomes eligible
- The student shall be governed by the regulations of the batch in which he/she is readmitted. That is on readmission, the student shall be required to do all the courses in the curriculum prescribed for the batch of students with whom he /she pursues the study subsequently
- The student shall study equivalent courses as substitute courses in place of repeated courses as decided by the Board of Studies, MGIT.

22. Revision of Academic Regulations and Curriculum

The Institute from time to time may revise, amend or change the academic regulations, scheme of examination and syllabus on approval by the Academic Council and Governing Body. The revision, amendments or changes made shall be applicable to all the students with effect from the dates notified by the Institute.



MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)

Kokapet (Village), Gandipet (Mandal), Hyderabad 500 075

Academic Regulations for B.Tech. (Lateral Entry Scheme) Program with effect from the Academic Year 2022 – 2023 (MR-21)

1. Eligibility for Admission

Admission to B.Tech. (Lateral Entry Scheme) program shall be made either on the basis of the rank obtained by the student in entrance test conducted by the State Government of Telangana (TSECET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the State Government from time to time.

2. All Regulations as applicable to four year B.Tech. program will hold good for three year B.Tech. program (Lateral Entry Scheme) except for the following:

2.1 Eligibility for the award of B.Tech. Program (LES)

- Pursued B.Tech. program for three academic years and not more than six academic years from the year of admission
- Registered for 123 credits and secured 123 credits (CGPA \geq 5.00)
- A student who fails to fulfill the above mentioned academic requirements shall not be eligible for the award of degree

2.2 Promotion Rules

A student shall fulfill the requirements mentioned in table-1 for promotion from the current semester to the next semester.

Table - 1. Promotion Rules

S.No.	Promotion	Conditions to be fulfilled
1.	From third semester to fourth semester	Regular course of study of third semester
2.	From fourth semester to fifth semester	i) Regular course of study of fourth semester ii) Must have secured at least 60% of the total credits (25 credits out of 42 credits) upto fourth semester from all the relevant regular and supplementary examinations conducted
3.	From fifth semester to sixth semester	Regular course of study of fifth semester

4.	From sixth semester to seventh semester	i) Regular course of study of sixth semester ii) Must have secured at least 60% of the total credits (51 credits out of 86 credits) upto sixth semester from all the relevant regular and supplementary examinations conducted
5.	From seventh semester to eight semester	Regular course study of seventh semester

**DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS
(MALPRACTICE RULES)**

S.No.	Nature of Malpractice /Improper conduct	Punishment
	If the student:	
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 or related to the course of the examination (theory or practical) in which student is appearing but has not made use of (material shall include any marks on the body of the student which can be used as an aid in the course of the examination)	Expulsion from the examination hall and cancellation of the performance in that course only.
(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any student 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 course only of all the students 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 course of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and Project work and shall not be permitted to appear for the remaining examinations of the courses of that semester. The hall ticket of the student is to be cancelled and sent to the University.
3.	Impersonates any other student in connection with the examination.	The student who has impersonated shall be expelled from examination hall. The student is also debarred and forfeits the seat. If the imposter is an outsider, he will be handed over to the police

		<p>and a case is registered against him.</p> <p>The performance of the original student, who has been impersonated, shall be cancelled in all the courses of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining courses of that semester and other semesters, if any. The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the program by the student is subject to the academic regulations in connection with forfeiture of seat.</p>
4.	Smuggles in the answer book or additional sheet or takes out or arranges to send out the question paper during or after the examination.	<p>Expulsion from the examination hall and cancellation of performance in that course and all the other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any. The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the program by the student is subject to the academic regulations in connection with forfeiture of seat.</p>
5.	Uses objectionable, abusive or offensive language in the answer paper or in letter to the examiner or writes to the examiner requesting him/her to award pass marks.	<p>Cancellation of the performance in that course.</p>

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 and cancellation of their performance in that course and all other courses the student(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the courses of that semester and other semesters, if any. The students also are debarred and forfeit their seats.</p> <p>In case of outsiders, they will be handed over to the police and a police case is registered against them.</p>
7.	<p>Leaves the exam hall taking away answer script or intentionally tears off 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 course and all the other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any.</p> <p>The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the program by the student is subject to the academic regulations in connection with forfeiture of seat.</p>

8.	Possesses any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any. The student is also debarred and forfeits the seat.
9.	If student of the college, who is not a student 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.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any. The student is also debarred and forfeits the seat. Person(s) who do not belong to the college will be handed over to the 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 course and all other courses the student has already appeared for including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that course and all other courses the student has appeared for including practical examinations and project work of that semester.

12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the Institute for further action to award a suitable punishment.	
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Malpractices identified by Squad or Special Invigilators:

Punishments shall be given to the students as per the above guidelines.

Malpractices identified at Spot Valuation center during Valuation:

The following procedure shall be followed in the case of malpractice cases detected during valuation, scrutiny etc. at spot valuation center:

- i) Malpractice detected at the spot valuation center:** The case is to be referred to the Committee constituted to look into the malpractice cases. The committee shall meet and discuss / question the student and based on the evidences, the committee shall recommend suitable action on the student.
- ii)** A notice is to be served to the student(s) involved, through the Principal, to his address and to the student(s) permanent address regarding the malpractice and seek explanation.
- iii)** Based on the explanation given by the party involved and recommendations of the committee, action shall be initiated.
- iv) Composition of the committee constituted to look into malpractice cases**
 - 1. Principal: Chairman
 - 2. Controller of Examinations: Member
 - 3. Concerned Head of the Department: Member
 - 4. Chief Examiner of the course/course expert: Member
 - 5. Additional / Assistant Controller of Examinations: Member (Convener)