TKM COLLEGE OF ENGINEERING

(Government Aided and Autonomous)

celebrating 60 years of excellence

Academic Regulations
for
M.Tech Programmes 2022

THANGAL KUNJU MUSALIAR COLLEGE OF ENGINEERING
(Government Aided and Autonomous)
KOLLAM-691005, KERALA

Abstract

TKMCE-Academics- M.Tech academic regulations 2022-orders issued

No: ACU3/1074/2022   Date: 01/10/2022

Order

Read:
1. UGC order Ref: F. 22-1/2022(AC) dated 26th May 2022
2. U.O. No. KTU/ASST11(ADMIN)/3212/2022 dated 2nd September 2022
3. ACU3/1010/2022 dated 16th September 2022

The TKM College of Engineering was conferred with autonomous status by the UGC on 26th May 2022 vide Ref: 1 and the same was notified by the APJ Abdul Kalam Technological University, on 2nd September 2022, vide ref.2

The first meeting of the Governing Body after the notification of autonomous status was held on 15th September 2022, authorized the Principal to constitute the Academic council as per the UGC (Conferment of Autonomous Status upon Colleges and Measures for Maintenance of Standards in Autonomous Colleges) Regulations, 2018. As per the resolution of the Governing Body, the Principal has constituted the Academic council on 16th September 2022 vide ref.3. The first Academic council meeting held on 24th September 2022, approved the M.Tech Regulations for the academic year 2022-23. The academic regulations for the M.Tech programmes, 2022 approved by the Academic Council, is hereby notified as the **TKM College of Engineering (Aided and Autonomous) Academic Regulations for M.Tech Programmes 2022**.

PRINCIPAL
THANGAL KUNJU MUSALIAR
COLLEGE OF ENGINEERING
KOLLAM-5

PRINCIPAL

Copy to: All HODs, Deans, IQAC, COE, AA, AO, SS, JS(A)

TKM College of Engineering (Government Aided and Autonomous)

Academic Regulations for M.Tech Programmes 2022

This will be known as **the TKM College of Engineering Academic Regulations for M.Tech Programmes 2022**. These are subject to the provisions of the UGC (Conferment of Autonomous Status upon Colleges and Measures for Maintenance of Standards in Autonomous Colleges) Regulations, 2018 and APJ Abdul Kalam Technological University Act, 2015, the statutes and ordinances if any issued in the subject from time to time. All the rules specified herein, approved by the Academic council, will be in force and applicable to the students admitted from the Academic year 2022-23 onwards.

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KOLLAM-5

DEFINITIONSANDNOMENCLATURE

Sl.No.	Name	Definition
1	Academic Council	The Academic Council of the College which ensures compliance to academic regulations
2	Academic Discipline and StudentWelfare Committee	The authority which monitors and ensures academic discipline and student welfare
3	Academic Management System (AMS)	A digital platform to assist in the implementation and monitoring of the academic activities
4	Board of Studies	Board of Studies of a Programme / Department which is involved in activities which ensure quality of academics
5	College	TKM College of Engineering, which provides undergraduate and/or postgraduate and/or Ph.D. Programmes for obtaining any Degree from the Parent University and which, in accordance with the rules and regulations of the University, is recognized as competent to provide for such programmes /courses of study and present students undergoing such courses of study for the examination for the award of such degree
6	Controller of Examinations	The authority of the College who is responsible for all activities related to examinations, publication of results, award of grade sheets etc.
7	Course	A course is a component of a Programme. All courses need not carry the same weightage. The courses should define learning objectives and learning outcomes. A course may be designed to comprise of either lectures/tutorials/laboratory work/fieldwork/ outreach activities /project work/vocational training/viva-voce/seminars/term papers/ assignments/ presentations/self-study etc. or a combination of some of these.
8	College Level Academic Committee for the Institution(CLAC)	A Committee responsible for the management and supervision of academic activities related to the PG program.

9	Credit	A unit by which the course work is assessed. It determines the number of hours of instructions required per week
10	Cumulative Grade Point Average (CGPA)	A measure of overall performance of a student, arrived at by considering all course credits that are needed for the Degree and the respective grade point
11	Curriculum	Assemblage of various components/courses studied in each Programme that provide appropriate outcomes in the chosen branch of study
12	Disciplinary Action Committee	College level body that looks into the reported cases of malpractice in all examinations and appropriate course of action based on an enquiry report submitted to the Principal
13	DQAC	The department level internal quality assurance cell. It concentrates on the importance of quality and quality assurance
14	Departmental Level Academic Committee (DLAC)	A Committee responsible for the management and supervision of academic activities related to the PG program.
15	Grade/Letter Grade	An index of the performance of students in a said course. Grades are denoted by letters
16	Grade Point/Cumulative Grade Point Average (CGPA)	A numerical weightage allotted to each letter grade on a 10-point scale
17	Grievances and Appeal Committee	The authority to look into the grievances of students
18	Dean, Student Affairs	The authority of the College responsible for all student related activities including student discipline, attendance in extra and co-curricular activities and academics
19	Head of the Department	The authority responsible for Department-level academic and non-academic activities
20	IQAC	The institute level quality assurance cell which concentrates on a formal strategy and its implementation for the continuous enhancement of quality
21	Parent University	University to which the College is affiliated -APJ Abdul Kalam

		Technological University (APJAKTU), Thiruvananthapuram
22	PG Coordinator	The authority responsible for coordinating all the academic and non academic activities of M.Tech students
23	Principal	The Head of the College
24	Programme	An educational Programme leading to award of Degree
25	Programme Assessment Committee	Department level committee including the Head of the Department, Academic Coordinator, Senior faculty members of Department and subject stream coordinators. The objective of this committee is to monitor and assess the concerned academic programme of the Department
26	Programme Coordinator	The authority to keep a record of academic and non-academic activities of students registered for the special M.Tech program
27	Semester Grade Point Average	A measure of academic performance of student/s in a semester

LIST OF TABLES

ABBREVIATIONS

Sl. No.	Abbreviation	Expanded Form
1	AICTE	All India Council for Technical Education
2	APJAKTU	APJ Abdul Kalam Technological University
3	BoG	Board of Governors
4	CGPA	Cumulative Grade Point Average
5	CIA	Continuous Internal Assessment
6	CLAC	College Level Academic Committee for the Institution
7	DLAC	Department Level Academic Committee for the Institution
8	DTE	Directorate of Technical Education
9	ESE	End Semester Examination
10	GATE	Graduate Aptitude Test in Engineering
11	HTTA	Half Time Teaching Assistantship
12	MHRD	Ministry of Human Resource Development
13	MoU	Memorandum of Understanding
14	OBC	Other Backward Classes
15	PWD	Person with Disability
16	SC/ST	Schedule Caste/Schedule Tribe
17	SEBC	Socially and Economically Backward Classes
18	UGC	University Grants Commission

ACADEMIC REGULATIONS-2022

PREAMBLE

This may be called TKM COLLEGE OF ENGINEERING ACADEMIC REGULATIONS FOR M.TECH. PROGRAMME 2022. These regulations are subject to the provisions of UGC and AICTE. All the rules specified herein, approved by the Academic Council, will be in force and applicable to students admitted from the Academic Year 2022 onwards. All the rules and regulations, specified hereafter shall be read as a whole, for interpretation and in case of any ambiguity, the interpretation of the Academic Council is final.

The regulations are drafted strictly in line with that of the parent University. The provisions contained in this set of regulations govern the policies and procedures on the admission and registration of students, imparting instructions of course, conduct of the examination, evaluation, certification of student"s performance and all amendments there to leading to the said Degree Programme(s). This set of regulations for the M.Tech Degree Programmes along with all the amendments thereto, and shall be binding on all students undergoing the said M.Tech. Degree Programme(s) conducted by the institution. These may evolve and get updated or refined or modified or amended through appropriate approvals from time to time, and such changes shall be binding on all parties concerned, including the students, faculty and staff. In all matters related to the regulations, the decision and its interpretation given by the Board of Governors (BoG) shall be final and binding.

The Curriculum is modified in par with global standards, without deviating much from the framework prescribed by the parent University. It assures flexibility for each programme and offers to meet industrial and research demands. The flexibility in curriculum allows the student to explore and pursue his/her areas of interest. The Curriculum structure evolves and provides an amalgamation of self-learning and skill enhancement and offers the students ample exposure to wider learning through mandatory MOOCs.

ACADEMIC PROGRAMMES

Nomenclature of the Programmes:

The College uses the nomenclature for the post-graduate programs as specified by the Parent University - APJ Abdul Kalam Technological University (APJAKTU), Thiruvananthapuram and the certificates issued by the University to their awardees bear the name of the College as well. This helps in maintaining the identity of each programme conducted at the College and also ensures its accountability.

Programmes Offered

TKM College of Engineering offers the following two-year M.Tech. Programmes under the Parent University. The programmes offered by the departments are listed in Table 1.

Table 1: M.Tech Programmes Offered

Sl. No.	Programme (Department offering the Programme)
1	STRUCTURAL ENGINEERING & CONSTRUCTION MANAGEMENT (Civil Engineering)
2	TRANSPORTATION ENGINEERING (Civil Engineering)
3	COMPUTER SCIENCE AND ENGINEERING (Computer Science and Engineering)
4	COMMUNICATION SYSTEMS (Electronics and Communication Engineering)
5	INDUSTRIAL INSTRUMENTATION AND CONTROL (SF*) (Electrical and Electronics Engineering)
6	POWER SYSTEM (SF*) (Electrical and Electronics Engineering)
7	INDUSTRIAL REFRIGERATION AND CRYOGENICS (Mechanical Engineering)
8	COMPUTER INTEGRATED MANUFACTURING (SF*) (Mechanical Engineering)
9	ARTIFICIAL INTELLIGENCE (Mechanical Engineering)
10	INDUSTRIAL SAFETY AND ENGINEERING (Chemical Engineering)

SF – Self Financing

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	R.1 ADMISSION TO MASTER OF TECHNOLOGY (M.TECH)
R.1.1	**Eligibility for admission:** The eligibility to the M.Tech. programme, admission policy, and procedure shall be decided from time to time by following the guidelines issued by the Government of Kerala, the Government of India, and other statutory bodies such as the All India Council for Technical Education (AICTE) / University Grants Commission (UGC) and the parent University. Important eligibility criteria areas are listed by the Director of Technical Education (DTE) with the approval of the Government of Kerala.
R.1.2	**Number of seats:** The maximum number of seats under various categories (regular, sponsored candidates, and SC/ST) shall be as approved by the AICTE, State Government, and the parent University.
R.1.3	**Conditions for eligibility:** Candidates who have been awarded or qualified for the award of the Bachelor's degree in Engineering/Technology in an appropriate branch, from an institution approved by AICTE/ UGC and approved deemed universities in India, are eligible for admission to the M. Tech. Programme.
R.1.4	Admission shall normally be restricted to those with valid GATE scores. However, this stipulation may be relaxed in the case of sponsored candidates, according to the policies of the Academic Council.
R.1.5	In case seats remain vacant due to a lack of candidates with valid GATE scores, candidates without valid GATE scores shall be considered. Admission to such seats shall be made based on their CGPA in the Engineering Degree. The candidate should have a minimum CGPA of 6.0 on a 10point scale in the Engineering Degree Examination.
R.1.6	The reservation policy of the Government of Kerala and the Government of India shall be followed in admission to the M. Tech. programme. For Socially and Economically Backward Classes (SEBC) and Other Backward Classes (OBC) students, the minimum CGPA requirement is 5.5 on a 10 point scale. Wherever the credit system is/was followed, only CGPA will be considered for selection. If the candidate has obtained a Bachelor's degree in Engineering from a University where the credit system is/was not followed, he/she should have a minimum of 60% aggregate marks (For SEBC /OBC students, a minimum of 54% aggregate marks in the Engineering Degree examination is mandatory). These students should produce a conversion formula of their CGPA score (approved by the Academic Council) if the same is not specifically stated in the mark list or certificate. For SC/ST candidates a

	pass in the Engineering Degree Programme is sufficient.
R.1.7	Candidates with a valid GATE score are eligible for the scholarship for government-aided M.Tech. programmes.
R.1.8	Candidates qualified in the Graduate Aptitude Test in Engineering (GATE) and admitted to the M. Tech. programme is eligible to receive Half Time Teaching Assistantship (HTTA) as per the rules of the AICTE/Ministry of Human Resource Development (MHRD).
R.1.9	Notwithstanding all that is stated above; the admission policy may be modified from time to time by the University, particularly to confirm the directions from the Government of Kerala/Government of India/AICTE as the case may be. These changes will be reflected in the institutional policy too.
R.1.10	If at any time after admission, a candidate is found to have not fulfilled any of the requirements stipulated by the University or the statutory body concerned, the admission of the candidate may be revoked and the matter reported to the BoG for ratification.
R.1.11	**Fee Structure:** The tuition fees will be levied as per the guidelines of the Government of Kerala and the administrative fees will include the fees prescribed by the parent University.
	R.2 STRUCTURE OF THE M.TECH PROGRAMME
R.2.1	**Duration of the Programme:** The minimum duration of the M. Tech programme will normally be two years consisting of four semesters. The maximum duration which a student can take to complete a programme shall be 4 years.
R.2.2	Under exceptional circumstances, a further extension of one more year may be granted subject to the approval of the Academic Council on the request made by the student. During the extended period (beyond maximum duration) the student shall be considered as a private candidate and will not be eligible for first class.
R.2.3	**Semester Scheme:** Every academic year shall have two semesters "1st July to 31st December (Odd semester)" and "1st January to 30th June (Even semester)", same as that of the parent University. Each semester shall have a minimum of 72 working days. The total contact hours shall normally be 29 hours per week including teaching assistance.

R.2.4	**Academic Calendar:** To ensure uniformity in the functioning of the Semester Scheme for all academic programmes across the College, each academic year is divided into semesters, with academic activities being fixed in advance by the college and maintaining a common opening /reopening date for the odd/even semesters.
R.2.5	**Academic Schedule:** The calendar shall include important academic activities to assist the students and the faculty. These include dates assigned for registration of courses, dropping of courses, and withdrawal from courses. The calendar shall also schedule the periodic tests and Class Committee meetings to be conducted during the semester. This enables the students to be well prepared and to take full advantage of the flexibility provided by the credit system.
R.2.6	**Curriculum Structure:** The academic work in each semester shall consist of program/stream courses, project-based courses, programme electives, open electives, seminars, lab courses, and dissertations. The curriculum offers adequate flexibility to the Department, program, and student. The minimum number of credits for successful completion of the M. Tech programme of any specialization is 70. Each programme will consist of: Core courses (Stream core courses and Programme core courses) Elective courses (Programme electives and Open electives) Research Methodology and IPR Laboratory courses Dissertation/Research work. The abstract of the curriculum and the curriculum for each semester are given in Tables 2 to 5.

R.2.7 **Table 2: Curriculum of Semester 1**

Slot	Courses	Marks		L-T-P	Hours	Credit
		CIA	ESE			
A	Discipline Core 1	40	60	3-0-0	3	3
B	Program Core 1	40	60	3-0-0	3	3
C	Program Core 2	40	60	3-0-0	3	3
D	Program Elective 1	40	60	3-0-0	3	3
E	Program Elective 2	40	60	3-0-0	3	3
S	Research Methodology& IPR	40	60	2-0-0	2	2
T	Laboratory 1	100	--	0-0-2	2	1
Total		340	360		19	18

Teaching Assistance: 6 hours

Table 3: Curriculum of Semester 2

Slot	Courses	Marks		L-T-P	Hours	Credit
		CIA	ESE			
A	Discipline Core 2	40	60	3-0-0	3	3
B	Program Core 3	40	60	3-0-0	3	3
D	Program Elective 3	40	60	3-0-0	3	3
E	Program Elective 4	40	60	3-0-0	3	3
S	Industry/Interdisciplinary Elective	40	60	3-0-0	3	3
T	Mini Project	100	--	0-0-4	4	2
	Laboratory 2	100	--	0-0-2	2	1
Total		400	300		21	18

Teaching Assistance: 6 hours

A few recommended Discipline Core Courses

- ➢ Advanced Computational Mathematics
- ➢ Linear Algebra
- ➢ Advanced Numerical Methods
- ➢ Optimization Techniques
- ➢ Probability, Statistics & Stochastic Processes
- ➢ Quantitative Methods for Artificial Intelligence
- ➢ Big Data Technologies
- ➢ Machine Learning with Python
- ➢ Automata & Languages
- ➢ Deep Learning & Neural Networks
- ➢ Computer Vision
- ➢ Natural Language Processing
- ➢ Advanced Machine Learning
- ➢ Internet of Things

Table 4: Curriculum of Semester 3

Slot	Courses	Marks		L-T-P	Hours	Credit
		CIA	ESE			
TRACK 1						
A	MOOC	To be completed successfully		--	--	2
B	Audit Course	40	60	3-0-0	3	--
C	Internship	50	60	--	--	3
D	Dissertation Phase 1	100	60	0-0-17	17	11
TRACK 2						
A*	MOOC	To be completed successfully		--	--	2
B	Audit Course	40	60	3-0-0	3	--
C	Internship	50	50	--	--	3
d	Research Project Phase 1	100	--	0-0-17	17	11
Total		190	110		20	16

Teaching Assistance: 6 hours

*MOOC Course to be successfully completed before the commencement of fourth semester

(starting from semester1)

Sample Audit Courses

- English for Research Paper Writing
- Business Communication and Presentation Skills
- Ethics & Human Values
- Pedagogy Studies
- Cost Management of Engineering Projects
- Personality Development through Life Enlightenment Skills
- Operations Research
- Composite Materials
- Energy from Waste
- Entrepreneurship Development
- Principles of Automation

Table 5: Curriculum of Semester 4

Slot	Courses	Marks		L-T-P	Hours	Credit
		CIA	ESE			
TRACK 1						
A	Dissertation Phase ll	100	100	0-0-24	24	16
TRACK 2						
A*	Research Project Phase ll	100	100	0-0-24	24	16
Total		100	100		24	16

Teaching Assistance: 5 hours

R.2.8	**Curriculum and Syllabi:** Every specialization of the M.Tech Programme shall have a curriculum and syllabi for the courses approved by the Academic Council. The syllabus for any course shall be normally modified / updated once in four years with inputs from experts belonging to academia and industry. Minor revisions in the content of the syllabus of any course can be made by the Academic Council based on the recommendation of the Board of Studies. However, innovative elective courses can be included as and when required, based on the recommendations of the respective Board of Studies, subject to the approval of the Academic Council. All revisions shall be based only on the recommendations of the Board of Studies concerned.
R.2.9	M. Tech. programme in all specializations of study is structured on a credit-based system, following the semester pattern with continuous evaluation, allowing flexibility for students to decide on the duration of programme completion.
	R.3 GUIDELINES FOR AVAILING LEAVE
R.3.1	A total of 30 days of leave (15 days per semester) may be granted as per the norms. The intervening holidays will be treated as part of leave with the provision of suffixing and prefixing holidays. In no way the leave rules would affect the attendance requirements for M. Tech students.
R.3.2	Students who desire to take leave have to apply for it to the PG Coordinator. This application together with any supporting documents like a doctor's certificate or other relevant information is to be forwarded to the Head of the Department with the recommendation of the teacher indicating the total leave of absence the student has so far availed. Approval for leave is to be given by the Head of the Department. After any

	prolonged medical leave, normally exceeding five instruction days, on rejoining, the student has to produce the fitness certificate given by the doctor.
R.3.3	Each academic year, an additional 30 days of leave may be granted to M.Tech students to leave the station for visits to other places strictly related to academic interests. Students may use this leave to attend short-term courses, and symposiums, present research papers/participate in National/International conferences, peruse library resources, meet top experts, use other institutions' laboratory facilities, and so on. Based on the suggestion of their supervisor(s) and permission from the Head of the Department, they may take this leave after completing their course work or during vacations during semester breaks. This is in addition to the leave indicated in Clause R.3.1.

R.4 COURSE REGISTRATION AND ENROLMENT

R.4.1.	All students have to register for the courses they desire to attend in a semester. Students admitted to the first semester are advised to register for all courses offered in the first semester. They do not have to enroll for the semester. All other students are required to register at the end of the semester for the courses they desire to take in the next semester. Later they have to enroll in these courses in the new semester based on the results in the previous semester
R.4.2	The dates for registration and enrolment will be given in the academic calendar. Any late registration or enrolment, allowed only up to 7 working days from the commencement of the semester, will attract a late fee. A student can drop a course or substitute one already registered for by another, for valid reasons with the approval of the faculty advisor. However, this has to be done within 7 working days from the commencement of the semester.
R.4.3	A student shall be eligible for enrolment only if he/she completely satisfies the minimum requirement to continue the programme viz. (i) he/she has cleared all the dues in the college, hostel, and library up to the end of the previous semester and (ii) he/she is not debarred from enrolment by disciplinary action of the college and (iii) he/she has paid all the tuition fees and all other relevant fees, if any, prescribed by the college. Students shall complete formalities like teaching evaluation of the courses registered in the previous semester etc. if any, as notified by the academic section before the registration into the next semester. Besides, a student should have fulfilled the credit requirement as given in Table 2 for registering for higher semesters.

Table6:Minimum Cumulative Credit Requirements for Registering to Higher Semesters			
Semester	Allotted credits	Cumulative credits	Minimum credits required
1	18	18	Not Applicable
2	18	36	Not Insisted
3	16	52	12creditsfromS1
4	16	68	Not Insisted

R.4.4	The maximum number of credits a student can register (course registration) in a semester is limited to 6 credits more than the total credits allotted in the curriculum for that semester.
R.4.5	In extraordinary circumstances like medical grounds, a student may be permitted to withdraw from a semester completely. Normally a student will be permitted to withdraw from the programme for a maximum continuous period of two semesters only.

R.5 ASSESSMENT PROCEDURE

R.5.1	In the first, second, and third semesters, all the courses to be credited are evaluated through continuous internal assessment and end semester examinations. Dissertation/research project Part II will be evaluated through continuous internal assessment and external assessment.
R.5.2	The maximum marks allotted for all theory-based courses for continuous internal assessment is fixed as 40 and for the end semester examination as 60, unless otherwise specified in the curriculum. The assessment marks for all courses are listed in the curriculum.
R.5.3	Students registered for a course have to attend the course regularly, meet the attendance requirements and undergo the entire evaluation procedure for the completion of the course. Credits for the courses are deemed to be earned only on getting a P grade (Pass) in the composite evaluation
R.5.4	Continuous Internal Assessment (CIA): The marks awarded for the continuous internal assessment shall be based on the day-to-day work, micro project, course-based project/task, seminar, data collection/interpretation, preparation of review articles, quizzes, periodic tests, etc. The faculty member (s) concerned shall carry out the continuous assessment for the course allotted to him/her. The CIA marks for individual courses shall be computed by giving weightage to the parameters as specified in the curriculum.
R.5.5	The CIA marks obtained by the student for all courses in a semester are to be published in the department notice board as stipulated in the academic calendar. Anomalies if any shall be rectified by the Department. A copy of the CIA marks shall be kept in the department for scrutiny and reference.

R.5.6	The marks obtained for the ESE for an elective course shall not exceed 20% over the average ESE mark % for the core courses. ESE marks awarded to a student for each elective course shall be normalized accordingly. For example, if the average end semester mark % for a core course is 40, then the maximum eligible mark % for an elective course is 40+20 = 60 %. The normalization will not be applicable for Research Methodology & IPR, Industry/Interdisciplinary Elective, and Audit Courses.
R.5.7	CIA mark percentage for a course shall not exceed 30% over the ESE mark % of that course. CIA marks awarded to a student for each course shall be normalized accordingly. For example, if the end semester mark % for a course is 40, then the maximum eligible CIE mark % for that course is 40+30 =70 %. The normalization will not be done in the cases of internship and dissertation/research project phase 2.
R.5.8	The end semester examinations shall be held twice a year: April/May session (for even semesters) and November/December session (for odd semesters). However, the end semester examinations of the third/fourth semester shall be conducted in both sessions.
R.5.9	The eligibility criteria for registering for the end semester examination are attendance in the course and no pending disciplinary action. The minimum attendance for appearing for the end semester examination for any course is 75%. Students who get scholarships from the Central or State Governments or any other agencies are expected to have 100 % attendance. However, under unavoidable circumstances, students are permitted to take leave as per clause number 3. Leave of absence for all these activities is limited to 25 % of the academic contact hours for the course. Students who do not meet these eligibility criteria are ineligible (identified by FE grade) to appear for the ESE.
R.5.10	On medical grounds, the Principal can relax the minimum attendance requirement to 65%, to register for the end semester examination. This is permitted for one or more courses registered in the semester. The Principal shall keep all records, which led to the decision on attendance, for verification by the Academic Auditor. However, this concession applies to anyone semester only during the entire programme.
R.5.11	The Principal is authorized to grant attendance relaxation (duty leave) to the students for organizing extra/co-curricular activities, up to a maximum of 5%. Students should produce required documents countersigned by the Sports Coordinator/ the Director of Physical Education in the case of sports activities or the PG Coordinator in the case of other extra/co-curricular activities, as the case may be, within ten days of the event, for awarding the relaxation. The documents thus produced shall be forwarded to the Principal with due recommendation of the Head of the Department. Under any circumstances, the principal shall not consider the documents, if the overall attendance of the candidate is less than 65%. Late applications received shall not be considered.
R.5.12	The students with courses having FE grades shall register for the courses again during the succeeding semesters in which the courses are offered. However, the third-semester students having FE grades can register for the courses in the next immediate chance, if offered by the institute.

R.5.13	Students, who have completed a course but could not write the end semester examination, shall be awarded an „AB" Grade, provided they meet other eligibility criteria. They shall register (exam registration) and appear for the end semester examination at the next available opportunity and earn credits without having to register (course registration) for the course again.
R.5.14	A student should obtain a minimum of 45 % marks in the end semester examination and a minimum of 50 % of the total mark (CIA marks + ESE marks) (See Table 3) to be eligible for grading a course as Pass. The students who have not scored a minimum of 45% marks in the end semester examination and a minimum of 50 % of the total mark (CIA marks + ESE marks) will be considered to have failed in the course and an F grade will be awarded.

Table 7: Weightage of the CIA and ESE for various categories of the courses

Sl. No	Category	CIA Weightage	ESE Weightage	Pass Minimum
1	Discipline Core Courses	40%	60%	45% for ESE and 50% for (CIA and ESE) put together
2	Program Core Courses	40%	60%	45% for ESE and 50% for (CIA and ESE) put together
3	Program Elective Courses	40%	60%	45% for ESE and 50% for (CIA and ESE) put together
4	Lab Courses/ Mini-project	100%	--	50% for CIA
5	MOOC	--	--	As stipulated by the agency conducting MOOC
6	Audit Course	40%	60%	45% for ESE and 50% for (CIA and ESE) put together
7	Internship	50%	50%	45% for ESE and 50% for (CIA and ESE) put together
8	Dissertation / Research Project Phase1	100%	--	50% for CIA
9	Dissertation / Research Project Phase2	50%	50%	45% for ESE and 50% for (CIA and ESE) put together

R.5.15	For the courses with no end semester examination, a Letter grade „F" will be awarded if the CIA mark is below 50%.
R.5.16	Candidates who received an F grade in a course shall have to appear in the end semester examination at the next available opportunity and earn the credits. Grades awarded in the supplementary examination will be considered as the grades in these courses.
R.5.17	A student shall be eligible for the award of M. Tech. Degree of the University on satisfying the following requirements: • Fulfilled all the curriculum requirements within the maximum duration permitted for the programme • No pending disciplinary action.
R.5.18	Grading is based on the % marks obtained by the student for a course. The semester grade card shall contain the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA) up to that semester. Grades and Grade Points are assigned as follows:

Table 8: Grades and Grade Points

Grades	Grade Points	Percentage of total marks obtained in the Course
S	10	90% and above
A+	9	85% and above but less than 90%
A	8.5	80% and above but less than 85%
B+	8	75% and above but less than 80%
B	7.5	70% and above but less than 75%
C+	7	65% and above but less than 70%
C	6.5	60% and above but less than 65%
D	6	55% and above but less than 60%
P (Pass)	5.5	50% and above but less than 55%
F(Fail)	0	Below 50% (CIE+ESE) or below 50% for ESE
FE	0	Failed due to lack of eligibility criteria
AB	0	Could not appear for the end semester examination but fulfils the eligibility criteria

Calculation of SGPA/CGPA

Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) is calculated as follows:

SGPA = $\Sigma(C_i \times GP_i)/\Sigma C_i$, where "$C_i$" is the credit assigned for a course "i" and "GP_i" is the grade point for that course. Summation is done for all courses registered by the student in the semester. The failed and incomplete courses shall also be considered in the calculation.

	CGPA = $\Sigma(C_i \times GP_i)/\Sigma C_i$, where "$C_i$" is the credit assigned for a course "i" and "GP_i" is the grade point for that course. Summation is done for all courses specified in the curriculum up to that semester for which the "CGPA" is needed. Here the failed courses shall also be accounted for CGPA for the M. Tech programme is arrived at by considering all course credits that are needed for the degree andtheir respective grade points. Note: Students who completed MOOC Course, GPi will be taken as 10 for both SGPA and CGPA calculation.
R.5.19	Classification of M.Tech Degree First Class with Distinction: CGPA 8.0 and above First Class: CGPA 6 and above Equivalent percentage marks: $10 \times CGPA - 2.5$
R.5.20	Grade cards shall be made available in the student login for the registered courses, every semester. On earning the required credits for the degree, the University will issue the Degree Certificate and Consolidated Grade Card.
R.5.21	**Valuation**: Answer papers of theory examinations, for which end semester examinations are conducted by the Institute. , shall be valued by two examiners. If the difference between the marks awarded by the two Examiners is not more than 15 percent of the maximum marks for ESE for the course, the marks awarded to the candidate shall be the average of two evaluations. If the difference in marks obtained in two valuations exceeds 15% of the maximum marks for the course, the answer script will be evaluated by a third examiner. The average of the closest two marks shall be considered as the marks secured by the candidate. However, if one of the three marks falls exactly midway between the other two, then the highest two marks shall be taken for averaging.
R.5.22	**Review:** The answer scripts of the courses can be reviewed as per request by the student. The outcome of the review shall be for the improvement of marks and improvement of grades. In this case, the marks obtained in the 1st valuation, 2nd valuation, and review shall be considered. The average of the two closest marks of the above three shall be considered as the marks obtained after review. In case of a tie of the closest marks, the average of all three above i.e. 1st valuation, 2nd valuation, and review shall be considered as the marks obtained after review. Detailed procedure is given in the examination manual.
R.5.23	**Malpractices in Examinations:** Any act of violation of the directions of the Institute, indiscipline, misbehavior, unfair practice in examinations from the part of students, faculty/staff members, the management, or any other source and malpractices in examinations observed or reported by a faculty member, invigilator or anybody shall be dealt with promptly as per the prescribed norms in the examination manual. **Note:** Notwithstanding the above regulations related to examinations, assessments, and

	malpractices, the details provided in the Examination Manual shall be taken as reference and final.

<table>
<tr><td colspan="2" align="center">R.6 ACADEMIC MONITORING AND STUDENT SUPPORT</td></tr>
<tr><td valign="top">R.6.1</td><td>

The College Level Academic Committee for the Institution (CLAC) and the Departmental Level Academic Committee (DLAC) for each department will be responsible for the management and supervision of academic activities related to the PG program.

The CLAC includes the following members

- The Principal should be the Chairman of the committee.
- The Secretary of the committee should be PG Dean.
- The Members of the committee include Heads of Departments/PG Coordinators of the department having M.Tech. Programmes, UG Dean and Dean Research.

The CLAC should hold at least two meetings each semester. The minutes of the meeting and the action taken report should be kept in the office of the PG Dean with the principal's countersign. All these documents will be examined by the internal auditor during the academic audit. The agenda of the meeting of CLAC includes the following points:

- ✓ Review the progress of course coverage against the academic calendar and the course plan and suggestions for improvement
- ✓ Academic quality and excellence of various programmes.
- ✓ Performance appraisal of Faculty handling the course as reported by DLAC.
- ✓ Review the placement and institute industry collaboration of each programme reported by DLAC.
- ✓ Matters related to the post graduate programme of various departments.

DLAC includes the following members:

- The Head of the Department should be the chairman of the committee
- The Secretary should be the PG Coordinator of the department
- The Members include Programme coordinators of all PG programmes of the department, Department Coordinator for UG and two faculty members handling PG classes

The DLAC will hold at least three meetings each semester. The minutes of the meeting will be maintained by the PG Coordinator along with the action taken report (with the countersign of the Head of the Department). Relevant points of the meeting will be reported to the Principal / PG Dean for reporting to the CLAC. All these documents will be examined by the internal auditor during the academic audit.

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		The agenda of the meeting includes the following points
		✓ Academic quality and excellence of the courses offered by the department.
		✓ To check if the course is progressing as per the academic calendar.
		✓ To oversee the continuous internal evaluation of students in a class for each course.
		✓ Performance appraisal of Faculty handling the courses
		✓ To corroborate the Placement analysis and institute industry collaboration of all programmes.
		✓ Any other matter related to the postgraduate programme of the department
		✓ Any appropriate responsibility or function assigned by the Principal.
R.6.2		**PGCoordinator**: Each department will have a professor as PG Coordinator. The duties of the PG Coordinator are:
		✓ To oversee and coordinate the activities of PG courses.
		✓ To Guide and advise students on all academic matters.
		✓ To keep a record of the academic activities of the registered students for all the M.Tech programs in that department.
		✓ To maintain student attendance on a daily basis (FN & AN).
R.6.3		**Programme Coordinators**: In departments that offer multiple M.Tech programs, a senior faculty member appointed by the HoD will act as the programme coordinator for that PG programme to coordinate academic activities in the department. The Programme Coordinator will have the role of Faculty Adviser (FA) of that program. If the department has only one M.Tech program, the PG Coordinator can act as the Programme Coordinator.
		The responsibilities of the programme coordinators are:
		✓ To control and coordinate the activities of a particular program.
		✓ To Guide and advise students on all academic matters.
		✓ To keep a record of academic and non-academic activities of students registered for the special M.Tech program
		✓ Communicate regularly with students' parents regarding academic and other general progress.
		✓ Keep custody of minutes of meetings with students and reports of action taken.

R.6.4	Internal marks and attendance shall be displayed on the notice board of the department as mentioned in the academic calendar and then uploaded by the respective faculty members on the Institute Portal. If students raise any discrepancies, it should be checked and corrected by the respective department. A copy of the CIA marks uploaded at the University will be kept with the Department for scrutiny and reference.

R.7. BREAKOFSTUDY

R.7.1	Students are allowed to take study breaks for a maximum of two semesters. Gaining study breaks can extend the duration of the programme to eight semesters, the maximum duration allowed by the rules. The student can take the break only with the prior permission of the Institution. The principal, along with his / her recommendations, will upload the student's request for approval along with all relevant documents to the Institution Portal. Students are required to re-join at the beginning of an incomplete semester as he/she begins to take advantage of the study break. Students are permitted to avail break of study: ✓ In case of accident or serious illness needing prolonged hospitalization and rest ✓ In case of any personal reasons that need a break in study. ✓ For internship leading to employment. In the event of a student dropping out due to illness, the student must submit all necessary medical reports along with the recommendation of the treating physician for the exact reasons for the study break and its duration. Before returning to the programme, the student must submit a fitness certificate from the doctor who treated him or her. Students who need a break from their studies for personal reasons must provide authoritative evidence and obtain approval from the principal regarding the reality of its need. Students who need a break from their studies for a 'job-leading internship' should produce an offer letter from the concerned employer. The principal should check the authenticity of the offer and submit his recommendation to the university well in advance for approval.

R.8. ACADEMICAUDITING

R.8.1	**Constitution of the Audit Team** Academic auditing is the process that checks and ensures the effectiveness of the teaching-learning process and the holistic development of the students. Audit teams are constituted by the IQAC for

	each programme. There shall be a convenor and two members, from other departments. The same audit team may also evaluate all the programmes offered by the Department.
R.8.2	One academic audit shall be conducted every semester, in the middle of the semester.
R.8.3	The auditors shall check the documents related to the performance of the faculty and students, and the infrastructure facilities of the Department. The team shall provide a report to IQAC, offering suggestions. The IQAC shall communicate the necessary corrective measures to the HoD of the department concerned.

R.9 MIGRATION FROM OTHER UNIVERSITIES

R.9.1	Migration to the college from other universities shall be permitted only if the parent university and the university from which transfer is sought enter into a bipartite agreement / MoU for this purpose and the student satisfies all the eligibility criteria as prescribed by the parent university.

R.10 GRACE MARKS FOR SPORTS / ARTS COMPETITIONS

R.10.1.	Only bonafide, regular students of the institute are eligible for the award of Grace Marks
R.10.2.	The grace marks will be awarded to the students for representing the institute in official level competitions /championships/tournaments when called upon to do so. The studentshall get official prior permission from the institute for representing the institute.
R.10.3	The maximum grace marks that can be awarded to a candidate in a particular semester for all events participated during that semester shall be 5% of the aggregate maximum of the End Semester Examination marks of all theory courses.
R.10.4	The maximum grace marks that can be awarded to a student for a theory course in a particular semester for all events participated during that semester shall not exceed 10% of the maximum aggregate marks of the End Semester Examination of that course.
R.10.5	The Grace Marks shall not be awarded for Practical / Lab/ Viva Voce/ internal assessment / Seminar/ dissertation etc even though she/he fails for the same.

R.10.6	Eligible Grace Marks shall be distributed equally on all theory papers/courses of the end semester examination of the semester concerned. However, redistribution of Grace Marks shall be allowed only in the case of those courses of an examination for which the candidate has passed. Redistribution is possible from passed courses to failed courses only. Redistribution of Grace Marks is not permissible from failed courses to other courses for a pass.
R.10.7	The Grace Marks shall be awarded for all theory papers/courses/subjects in a semester.
R.10.8	Redistribution shall be done only for enabling a candidate to obtain the minimum marks required for a pass.
R.10.9	Grace Marks shall not be redistributed from one semester to another semester.
R.10.10	If the candidate does not secure the minimum marks required for a pass even after effecting redistribution, eligible moderation fixed by the respective pass board if any, shallbe awarded to that candidate in addition to the Grace Marks for a pass
R.10.11.	Eligible Grace Marks shall be awarded for the regular examination of the performing semester only. Grace Marks shall not be awarded for supplementary examinations
R.10.12	The performing semester shall generally be considered from 1st July to 31st December(Odd semester) and 1st January to 30th June (Even Semester) to award grace marks.
R.10.13	The request for Grace Marks shall be submitted to the Controller of Examinations along with all relevant documents, within the time limit prescribed. The request for Grace Marks received after the time limit shall not be entertained on any account.
R.10.14	Only a single highest achievement during a semester shall be considered for awarding thegrace marks.
R.11 GRACE MARKS FOR DIFFERENTLY ABLED CANDIDATES	
R.11.1.	A person with disability (PWD) is a student of the college suffering from not less than 40% of any disability, as certified by the District Medical Board. To be eligible for the Grace marks, a certificate of disability specifying the percentage of disability shall be produced before the Principal, at the time of admission
R.11.2	The Grace marks that can be awarded for PWD shall be 25% of the marks, scored by the candidate in each course, at the time of finalization of the results.
R.11.3.	Transfer of marks from one paper to another shall not be permitted. Fractions of marks if any, while computing the Grace marks, shall be rounded off to the next higher integer.

R.11.4.	PWD who are eligible for Grace marks shall be awarded Grace marks, for regular and supplementary chances until they pass the whole examination.
R.11.5	Grace marks shall be awarded only for the marks of the End Semester examinations.
R.11.6	The request for Grace marks shall be submitted to the Controller of Examinations, along with all relevant documents.
R.12 POWER TO MODIFY	
R.12.1	The Academic Council shall modify any of the above regulations from time to time.