

MASTER OF TECHNOLOGY (M.TECH) PROGRAMME



POLICIES AND PROCEDURES

2025

PREAMBLE

In order to maintain uniformity and ensure a Top grade Post Graduate Programmes, the University level Committee for Post Graduate Programmes (UL-CPGP) proposes the following Policies and Procedures.

- The word “University” means “Amrita Vishwa Vidyapeetham University under section 3 of the UGC Act 1956”, unless context otherwise requires. For the purpose of this document, Department/ Department Chairs also include Centre/ Centre Heads, except when the context otherwise requires. Departments/Centers that have received explicit approval shall offer M.Tech Programmes. The University will decide the specialization of an M.Tech Programme and the accretion to each specialization.
- Appellation of a M.Tech Programme shall be, *M.Tech. in <Name of Specialization>, e.g, M.Tech in Automotive Engineering*. The name of the Department offering the programme shall not be included in the Degree Certificate.
- The Dean for postgraduate programme or similar academic rank, as appointed by the Vice Chancellor, hereafter referred as Dean-PGP, has primary responsibility over all M.Tech programmes, and shall report all major actions to the Vice Chancellor for approval. Each campus offering one or more M.Tech Programmes shall have the Department Chair. Programme Coordinators entrusted with primary responsibility for the conduct of the programmes in that campus shall adhere to the policies and procedures outlined in this document.
- The Dean-PGP shall work closely with the respective Department Chairs and Programme Coordinators to ensure the successful conduct of the programmes. The respective Department Chair and Programme Coordinator shall report all major actions to the Dean-PGP for approval.
- The award of M.Tech degree shall be in accordance with the Policies and Procedures outlined in this document as well as other ordinances, rules, and regulations of the University. An M.Tech student may petition to the Department Chair for a waiver of fee / substitution for programme course or any requirement. A deserving petition shall be escalated to the Dean-PGP and the Vice Chancellor. The decision of the Vice Chancellor will be final and binding. The Academic Council and the Board of Management alone will have the power to make amendments to these rules and regulations from time to time, as they deem appropriate.

M.Tech at a Glance

M.Tech students admitted normally as full-time students. In order to be eligible for admission, an applicant should have a strong academic record (minimum 60% average) with either a B.E/ B.Tech or equivalent Bachelor's degree in Engineering or an MCA/ M.Sc or equivalent Master's degree in Science. Applicants with excellent test scores on standardized graduate aptitude tests such as GATE will be given preference. The M.Tech programme consists of 40 to 44 credits of prescribed course-work and 26 to 33 credits of dissertations and research projects to a total credit of 66 to 77. All courses shall be University approved courses and medium of instruction shall be English.

A credit-based continuous assessment pattern will be followed.

- One credit for each lecture period per week,
- One credit for each tutorial period per week, and
- One credit for each laboratory course of two or three periods per week.

Every student is required to plan and write his / her dissertations and research projects, a scholarly research paper targeted at a Scopus-indexed conference or journal. The student's dissertations and research projects advisor should make the submission to the conference / journal after written consent to the Department Chair. The duration of the M.Tech programme shall normally be four semesters (2 years). Students are expected to carry out all work with academic integrity and should abide by the code of conduct of the University.

1. PROGRAMME POLICIES

This section deals with Admission Procedure, Board of Studies, Course Committees and Course Mentor.

1.1 Admission

The advertisement for admission should clearly indicate the minimum qualification for the different programmes, dates for the commencement of the issue of application and receipt of completed application, date for entrance examination and possible venues for the entrance examination.

Applications will be issued and received until the last date notified for the receipt of the completed applications. Candidates with valid GATE scores will be exempted from the entrance examination for M.Tech Programmes. Candidates with high GATE score will be offered direct admission.

Candidates sponsored by various organizations recognized by DST as Research and Development units, candidates sponsored by educational institutions approved by AICTE/UGC/Government or from Government/ Public Sector Undertakings will be offered direct admission.

The short-listed Non-GATE candidates will have to appear for entrance test and / or interviews. The merit list for admission will be based on the performances in their qualifying examinations and in the Entrance Test and / or Interviews.

The Selection Committee will consist of a minimum of three persons and chaired by the Department Chair / Programme Coordinator of the department. Depending on the minimum qualifications specified

in the applications of certain M.Tech Programmes (e.g. computing-related programmes), may be evaluated jointly by the respective selection committees; however, a separate ranking of candidates for each M.Tech Programme should be prepared.

1.2 Board of Studies

The curricula and course syllabi for an M.Tech programme shall be formulated initially. Updated once in two years based upon recommendations from the Board of Studies for the programme concerned.

The Board of Studies consists of 12 members, with at least one member from each of the following groups:

- An international expert from a University outside India;
- An expert from a leading Indian University (such as IIT/IISc/ NIT);
- An expert from Industry;
- Faculty members from each campus offering the M.Tech programme or a closely related programme; and an alumnus who excelled in the programme.

The Department Chair, Programme Coordinator may add the required elective courses, to the curricula, at any time with the approval of the Dean-PGP.

1.3 Course Committee / Course Mentor

While the Board of Studies oversees the overall M.Tech curriculum and course syllabi, a Course Committee and Course mentor monitor each course that is offered. This committee will consist of mentors, one from each campus, nominated by the respective Department Chairs of the Campus. The Programme Coordinator nominated by the Dean-PGP, could be one of the campus mentors for the course or could be an additional person. In addition, there will be one-student representative from each campus invited for all meetings except those dealing with question papers and other confidential matters.

The Course Committee shall meet at the beginning of the semester to finalise the teaching program as well as evaluation pattern. Campuses have local autonomy to set their own question papers for periodical tests and the final exam. The respective course mentors should prepare question papers in advance so that the Department Chair is given adequate time for review and providing feedback. After a question paper is finalised, the course mentors will forward the same to the Deputy Controller of Examinations at each campus who in turn will oversee the duplication and distribution of the question paper.

2. ACADEMIC REQUIREMENTS FOR STUDENTS

All students are expected to conform to the regular academic requirements of the University. This involves registering for courses, attending classes regularly, doing assignments in a timely manner, appearing for examinations, etc., and also conforming to the rules, regulations and practice accepted in the University

2.1 Course Registration

Course registration is a mandatory process. Students cannot appear for the classes without registration. Upon admission, every student will be assigned a Faculty Advisor by the Department Chair concerned. The faculty advisors will advise the students in all academic activities including registration, selection of electives, projects, etc.

Students are required to register for courses (including dissertations and research projects) within the stipulated time through AUMS. Any violation may lead to non-acceptance of the course registration.

A student is permitted to register for courses if and only if he/she has:

- Paid all fees and has no dues to the University
- Has maintained the progress as required by the University
- Has completed pre-requisite courses, if prescribed
- Has no disciplinary action pending against him/her

Every student will be given access on the Amrita intranet to all M.Tech Programmes, including the relevant policies, procedures, curricula, and course syllabi. Students doing an M.Tech programme in one specialization can take courses offered in another specialization with prior approval of the faculty advisor and Department Chair concerned. Except for the first semester, registration for a given semester shall be done during a week specified before the end-semester examination of the previous semester, endorsed by the faculty advisor and the course instructor.

Students are allowed to take online courses through NPTEL / SWAYAM, can opt for a maximum of two (2) NPTEL/SWAYAM courses with the total credits not exceeding 6. The respective Department Chairs should authorize the course before registration. Amrita grade, equivalent to the score secured in online courses to be awarded to the students after the successful completion of the course.

2.2 Duration of Programme

The normal duration of the M.Tech Programme is 2 years (4 semesters). In the exceptional case of the students who are not in a position to complete the requirements within two years, the Dean-PGP / Department Chair may grant an extension of stay by one or two semesters, as needed. Such students need to pay the fees like any other student, once again register for the course(s) and successfully complete them as per the normal requirements.

2.3 Attendance and Leave

A student is expected to put in 100% of attendance, in each of the regular courses, he/she has registered.

- Students are required to maintain a minimum of 75% attendance in every course. Failing which they will not be eligible to appear for the end-semester examination in that course and will be awarded "FA" grade for that course
- If the attendance earned of the concerned Department Chair / Programme Coordinator may

consider a student falls short of 75% in any of the course due to continuous absence caused by accident, prolonged illness, or unforeseen circumstances, such cases can be recommended for condonation based on the request of the student, supported by required documents

- Finalisation of attendance for every course shall be done three working days before the last instruction day of the semester
- Leave shall be availed by students only under unavoidable circumstances. It is mandatory that students shall apply in the prescribed form before proceeding on leave. Leave letter recommended by the faculty advisor shall be submitted to the Programme Coordinator of the department for consideration and approval. Unauthorized absence will be treated as breach of discipline
- Students going on official duties such as representing the School for sports and cultural activities, or presenting papers in seminars will be eligible for “duty leave” on the recommendation by the faculty advisor and the concerned Department Chair. Duty leave will be counted as equivalent to attendance for administrative purposes, which will be limited to five working days per semester, provided the information is sent to all the faculty members concerned at least one week in advance

2.4 Course Evaluation

The academic performance of each student in each course will be assessed on the basis of Internal Assessments (including Continuous Assessment) and an End-semester Examinations.

- For all the theory and lab integrated theory courses, the final grading will be based on the Mid Term (Internal), continuous assessment (Internal) and end semester examination /project (External).
- In the case of laboratory course, the assessment will consist of continuous assessment (internal) and end semester examination (external).

It is mandatory that students appear for the end-semester examination for the completion of a course.

2.5 Supplementary Examination

Supplementary Examinations will be held for all courses, during both the odd and even semesters.

Students who have failed in a course can register and appear for the same in the supplementary Examination, conducted at the end of the subsequent semester(s). In addition, those students who could not appear for the end-semester examination due to illness or reasons beyond their control will also be permitted to appear for the supplementary examinations.

The Continuous Assessment marks earned by the student, for the course, shall be carried over to the Supplementary examination. Students who have passed a course are not permitted to appear for the supplementary Examination for improving their grades. Supplementary examinations are available only for students failed in the course(s).

The students who have insufficient attendance shall be awarded ‘FA’ grade in the course(s). Those who

secure an 'FA' grade, will not be allowed to appear for the supplementary examination and will have to re-register for the course. In re-registering for courses, it is mandatory to successfully complete the same core course. However, in the case of electives, the PGP Chair may approve an equivalent course on the recommendation of the Faculty Advisor and Department Chair.

2.6 Dissertation Research and Research Paper

Every M.Tech student is required to register for a total of 26 to 33 credits of Dissertation Research, which will be divided roughly as 10 to 16 credits in semester III and 16 to 17 credits in semester IV. The Dissertation Research must be carried out under an Amrita faculty member, either within or outside the student's department, and that faculty member will be referred to as the student's Dissertation Advisor.

Towards the end of completing the Dissertation Research, the student is required to submit a Dissertation Report, documenting all results, including system design, implementation, theory, experiments, and performance evaluation, as applicable. The Dissertation Report is submitted to the Dissertation Advisor. Where applicable, an evaluation (qualitative or quantitative) by a Dissertation co-Advisor will be also taken into account by the Dissertation Advisor.

An **important requirement** of Dissertation Research is the submission of a Research Paper to a Scopus-indexed conference proceedings or journal. A research paper describes the motivation and significance of the problem being addressed; the background and related literature for the research; the proposed approach, concepts, and system design; experimental results and contributions; conclusions and directions for further research; and references cited.

Submission of the Research Paper to a Scopus-indexed conference/ journal should be made by the Dissertation Advisor only after obtaining written consent from the Department Chair. Students should not submit papers on their own to conferences/ journals without approval from their Advisor and Department Chair.

All publications based upon the Dissertation research should list the name of the Dissertation Advisor and Co-Advisor (if any), with their consent, in addition to the M.Tech student's name. The Amrita affiliation in conference/journal papers should be written as follows:

Amrita Authors
Department/ Centre
Amrita Vishwa Vidyapeetham
Campus, India

The Department Chair will invite external experts to help the final evaluation of dissertations. The Chair will assign the M.Tech student reports to a Committee consisting of all Dissertation Advisor(s) and senior faculty of the Department. The Department Chair will normally serve as Chair of this Committee, unless he/she is also a Dissertation Advisor, in which case the Vice Chair of the Department will head the Committee.

There are two parts to the evaluation. In the first part which is open to public, all M.Tech students are

required to briefly present their work. In the second, which is closed-door (with only the Committee members present), a thorough discussion about the dissertation will take place, at the conclusion of which, for each student, the Committee will assign a numerical score out of a maximum of hundred.

After completing the evaluation of all M.Tech students in a specialization, all Dissertation Advisors in that specialization and the Department Chair will meet and assign every student a letter grade. If a dissertation is not satisfactory, the student will be asked to continue the dissertation and appear for the assessment later and an “I” grade will be given.

2.7 Grading

Based on the performance in each course, a student is awarded, at the end of the semester, a letter grade in each of the courses registered on a ten-point scale.

The letter grades, the corresponding grade points and the ratings are as follows:

<i>Letter Grade</i>	<i>Grade Points</i>	<i>Ratings</i>
O	10	Outstanding
A+	9.5	Excellent
A	9	Very Good
B+	8	Good
B	7	Above Average
C	6	Average
P	5	Pass
F	0	Fail
FA	0	Failed due to shortage of Attendance
I	0	Incomplete (awarded only for Lab courses/Dissertation Research/Seminars)
W		Withheld

Note:

The ‘I’ grade, awarded in a Lab course/Dissertation Research/Seminar course, will be subsequently changed into appropriate grade, when the student completes the requirement within 45 contact days of the subsequent semester. If he/she does not complete within 45 contact days of the next semester, it will be converted to ‘F’ grade.

2.8 Grading process for Online Courses (NPTEL/SWAYAM)

- 15 hours / 4 weeks of online course to be mapped to 1 credit; 8 weeks is equivalent to 2 credits; and 12 weeks is equivalent to 3 credits.
- Percentage score awarded is mapped to grade point as per the following table

Grade	Grade Points	Mark Range	
		Lower bound	Upper Bound
O	10	93	100
A+	9.5	85	92
A	9	78	84
B+	8	71	77
B	7	64	70
C	6	57	63
P	5	50	56
F	0	0	49

- c. Course completion certificate is mandatory, and the total (final) score obtained only will be considered for equivalent grading.
- d. After mapping the score obtained by the student in NPTEL/SWAYAM to grade rule as given in the above table, the grade awarded to the student will be one grade higher. For example, if a student scores '68' marks in a NPTEL/SWAYAM course, as per our mapping table it is equivalent to 'B' grade, then one grade higher will be 'B+', which will be awarded to him/her in that course.

In the event the online course is offered in between two semesters (vacation period),

- If the online course is completed before the grade publication of the given semester, the grade from the online course will be included in that semester grade sheet.
- If the online course completion date is past the grade publication date of the current semester, grade for the online course will be included in the subsequent semester grade sheet.

2.9 Declaration of Results

Results will be declared by the respective campus examination office, after the finalization of grades by the Class Committees and subsequent approval by the Dean-PGP/Associate Dean/Principal of the School.

2.10 Revaluation of Answer Papers

Revaluation will be allowed only for theory-based courses. In case any student feels aggrieved, he/she can request for revaluation of answer scripts of the end semester examination. The student has to submit a request in the prescribed form to the Deputy Controller of Examination within seven days from the publication of results through the respective Department Chair with the applicable revaluation fee.

The answer paper will be shown to the student in the presence of the faculty who valued the answer script and the concerned Department Chair. After going through the answer book and the marks awarded, if the student desires revaluation, the Department Chair along with the faculty who valued the answer paper will do it. When the revaluation is completed, the results will be published, and the revised grade will be awarded to the student.

2.11 Semester Grade Point Average (SGPA)

Each student is assigned a Semester Grade Point Average (SGPA) on completion of a semester which is computed as below for all courses registered by the student during that semester.

$$SGPA = \frac{\sum(Ci \times GPi)}{\sum Ci}$$

Where, Ci is the number of credits for i^{th} course in that semester and GPi is the grade point earned by the student for that course.

2.12 Cumulative Grade Point Average (CGPA)

Overall performance at any stage of the M.Tech programme is computed based on the results of all semesters completed so far. Cumulative Grade Point Average (CGPA) up to that point of time,

$$CGPA = \frac{\sum(Ci \times GPi)}{\sum Ci}$$

Where, Ci is the credit for i^{th} course in any semester and GPi is the grade point for that course.

The summation is over all the courses registered by the student and evaluated during all the semesters up to that point of time, including the failed courses. The CGPA is rounded off to two decimals. The ranking of the students in a batch at any intermediate or final stage is based on CGPA.

2.13 Course Completion:

A student is said to have successfully completed a course and earned the corresponding credits, if he/she has:

- Registered for the course.
- Maintained 75% or more attendance in the course.
- Appeared for the end-semester examinations.
- Secured a pass grade "P" or better in the course.
- No pending disciplinary proceedings against him/her.

2.14 Award of Degree

In order to be eligible to receive the M.Tech degree, all candidates must complete a Research Paper (based upon the Dissertation Research) which can be submitted to a Scopus-indexed conference/journal.

There are three levels of passing, as outlined below.

In order to earn the **M.Tech Degree with Distinction**, a candidate must:

- pass all courses in the first attempt in the normal duration of two years obtaining a CGPA of 8.0 and above;
- OR
- pass all courses in the first attempt obtaining a CGPA of 8.0 and above completing the

program within three years (up to one more year) provided the extension is officially permitted by the PGP Chair to take a break during the programme;

OR

- Pass all courses in the first attempt obtaining a CGPA of 8.0 and above, and complete the Dissertation Research work before the end of the fifth semester (up to one semester extension) provided the PGP Chair officially permits the extension.

Students who do not meet the above criteria for distinction will be considered for graduation with First Class.

In order to earn an **M.Tech Degree with First Class**, a candidate must:

- pass all courses in the first attempt in the normal duration of two years obtaining a CGPA between 6.50 and 7.99;

OR

- pass all courses obtaining a CGPA of 6.50 or above, but taking one semester extra due to failures, etc.;

OR

- pass all courses obtaining a CGPA of 6.50 or above, but redoing the Dissertation Research within one extra semester.

Students who are not covered under Distinction or First Class and who secure a CGPA of 5.0 or above will be awarded the M.Tech Degree without any class or distinction.

3. CODE OF CONDUCT FOR STUDENTS

3.1 Discontinuation of Studies

Based on academic, discipline or other reasons of serious nature, a student may be asked to discontinue from the programme to which he or she was admitted. A student may also, for extraneous reasons, withdraw from the course of study for which he or she is admitted. In all such cases, the student will forfeit the fees paid until the end of academic year concerned but will be issued a Transfer Certificate.

3.2 Authenticity of Documents

During the course of the study in the University, if any information (proof of age, qualification for admission, etc.) furnished by a student is found to be willfully misrepresented or forged, the student will be dismissed from the University. He or she will forfeit all fees paid up to the end of concerned academic year. The onus of proof for authenticity of all the certificates rests with the student. If such cases are detected after completion of the course, the degree conferred by the University will be withdrawn.

3.3 Malpractice and Plagiarism

- Malpractice of any sort in examinations, laboratories evaluation and assignments will be referred to the Disciplinary Action Committee for suitable punishment.
- Plagiarism is the practice of taking someone else's ideas or work and calling them one's own without due attribution (acknowledgment or citation). This is also academic malpractice and will be treated by the Disciplinary Action Committee.

When writing their Dissertations and Research Papers, students should never reproduce material verbatim from published conference or journals papers, text books or other sources such as the web documents. It is important to express in one's own words the salient points from related literature rather than copying verbatim what someone else has written.

3.4 Ragging

Students are seriously cautioned that any act of ragging is a criminal offence, which may attract punishment including criminal prosecution and/or dismissal from the University with a mention in the Transfer Certificate to this effect.