

**Dr. Babasaheb Ambedkar Technological University,
Lonere - Raigad**

(Established by Government of Maharashtra and Governed by Dr. Babasaheb Ambedkar Technological University Act No. XXII of 1989)



*PG (M. Tech) Courses Rules and Regulations
For Admission, Monitoring and Award
of*

*Master of Technology Degree
(M. Tech)
(Credit System)
under the
Faculty of Engineering and Technology*

(As approved by the Academic Council on ____ January 2014
and by the Executive Council on ____ January 2014)

<http://www.dbatuonline.com>

Dr. Babasaheb Ambedkar Technological University will offer full-time Post Graduate, M. Tech Programs in the academic disciplines of Chemical Engineering, Power Systems Engineering, Environmental Engineering, Manufacturing Engineering, Electronics and Telecommunication Engineering, Thermal and Fluids Engineering, and Computer Engineering. These rules and regulations shall also be applicable for any new M. Tech Programs introduced by the University from time-to-time. The provisions contained in these Rules and Regulations will govern the conditions for imparting courses of study/instructions, conducting examinations and evaluation of students' performance leading to all M. Tech Programmes of the University.

1. Admission

- 1.1 Admissions to M. Tech Programme will be made through a Centralized Admission Process (CAP) as prescribed by the Government of Maharashtra from time to time.
- 1.2 All students admitted shall be required to pay at the time of joining and also in the subsequent semesters prevalent tuition and other fees prescribed by the University (as per Government of Maharashtra directives) till they are on roll.
- 1.3 The University reserves the right to cancel the admission of any student, and ask him/her to discontinue his/her studies at any stage of his/her career on grounds of unsatisfactory academic performance, irregular attendance in classes or indiscipline. Rules regarding conduct and discipline are given in *Appendix – I*.

2. Academic Calendar

The academic year will be divided into two semesters. The Academic Council of the University shall approve the schedule of academic activities for an academic year including the dates of registration, Periodic Tests, End Semester Examinations, and Inter Semester Break etc. and shall be referred to as the Academic Calendar for the year.

3. Attendance requirements

Attendance in all classes will be mandatory. A student may be debarred from appearing at an examination on the ground of unsatisfactory attendance.

- 3.1 Minimum required attendance in each theory / laboratory course will be 75 % for appearing at the end semester examination. Only in exceptional cases of prolonged illness or a calamity in the family, condonation of shortage of attendance up to 15% (i.e attendance to be 60% or more) may be granted by the Heads of the Department concerned. In any case if the attendance is less than 60% he/she will not be permitted to appear for the semester examination for that subject and he/she has to re-register for that subject when offered next.
- 3.2 A student of M. Tech programme is entitled to avail leave of absence for a total period of maximum 30 days in a calendar year.
- 3.3 Any absence over and above the prescribed limit of admissible leave shall entail deduction from the scholarship, if applicable, besides other action as may be decided by the University.

4. Course Structure

- 4.1 Teaching for the M. Tech Programme shall be reckoned in credits, as specified against each subject.
- 4.2 In order to qualify for a M. Tech degree of the University a student is required to complete all the credits specified in the scheme of instruction for that programme as approved by the University from time to time.
- 4.3 The curriculum for a M. Tech Programme shall comprise of core and elective subjects. The list of elective subjects may include subjects from allied/ interdisciplinary areas also.

5. Evaluation

5.1 Evaluation in the theory courses shall be done as follows, for a total of 100 marks.

Periodic Tests (2)	40 marks (20 marks for each test)
Comprehensive Viva	10 marks
End Semester Exam	50 marks

Total	100 marks

5.2 For subjects like laboratory/design (intra semester assessment)

Day to Day work	30 marks
Examination/Viva	20 marks

Total	50 marks

6. Dissertation (Thesis) evaluation

- 6.1 Total 42 credits are assigned to the project work (dissertation) carried out by a student. The project work is divided into two stages. Stage I commence at the beginning of 3rd semester with a weightage of 14 credits and will be assessed at the end of the 3rd semester. Stage II commences at the beginning of 4th semester with a weightage of 28 credits and will be assessed at the end of 4th semester. For the purpose of assessment, the performance of a student in the project work shall be divided into the following sub-components with assigned weightage.

Supervisor (Project Guide)	- 30%
Departmental Project Assessment Committee	- 30%
External Examiner	- 40%

- 6.2 External examiner shall be from outside the University.
- 6.3 The Dissertation/Thesis must be submitted on or before 31st July. The students who will not be able to submit the Dissertation/Thesis on or before 31st July will not be allowed to appear for the regular examination/defense. They will have to appear in the subsequent supplementary examination/defense arranged by the University.
- 6.4 The project supervisor will periodically review the student progress over the period and finally give his assessment of the work done by the student.

7. Synopsis Seminar

A student shall be required to present a synopsis seminar of the work and deliver a seminar talk of 20-25 minutes duration in 4th semester as per the schedule announced by the Department. The synopsis seminar shall be assessed by Departmental Project Assessment Committee (DPAC) consisting of respective Head of the Department, supervisor of the student concerned, three faculty members nominated by the Head of the concerned Department from amongst the M. Tech supervisors. The student will be allowed to submit the dissertation/thesis subject to satisfactory defense of the synopsis. If the synopsis seminar is not found satisfactory the student will have to do more work as suggested by the DPAC. The student shall thereafter deliver another synopsis seminar within one month. The project assessment committee shall be at liberty to extend the duration of the project work by a maximum period of 3 months should they find that the level of work done has not been satisfactory.

8. Dissertation and Viva-Voce

A student shall be required to submit a dissertation on the Project Work carried out by him/her. Three / four bound copies of the thesis (along with a soft copy to be submitted to the Controller of Examinations) shall be submitted to the Head of the Department on or before 31st July. The soft copy of the dissertation will be sent by the Controller of Examinations via e-mail to the external examiner, appointed by the appropriate authority, from a panel of experts prepared by the University.

Dissertation viva-voce shall be arranged by the Controller of Examinations within thirty days (maximum). The external examiner will conduct the viva-voce along with the internal examiner.

9. Project in Collaboration with industry

A student may, with the approval of Head of the Department, do the project work with an industry, a Research and Development Organization or another academic Institution/ University. The student shall acknowledge the involvement and/or contribution of an industry, R&D organization or University in completing the project in the dissertation and a certificate to this effect, issued by the supervisor from the industrial organization, will be appended to it.

It is mandatory for all students (especially those who do their project in an industry, R&D organization or University in India or abroad) to make a full disclosure of all data on which they wish to base their thesis. They cannot claim confidentiality as it would come into conflict with the industry's, R&D laboratory's or other University's own interests. Any tangible intellectual property other than copyright of thesis may have to be assigned to the Institute; the copyright of the thesis itself would however lie with the student as per the IPR policy in force at the time. The student's thesis shall be rejected unless there is full and complete disclosure of data and the student will not be eligible for the degree of the Institute in such cases.

In addition to the Supervisor from the department guiding the project work a Co-Supervisor may be appointed from the Industry and Research Laboratories with the approval of the DPAC. A certificate from the Co-supervisor will be appended to the dissertation. A member of faculty of the University who is the internal Supervisor may, if

felt necessary, visit the Industry or the Research Laboratory in connection with the Project of a student.

10. Registration

- 10.1** All students of the post-graduate courses are required to register for the prescribed subjects at the commencement of each of the semester, on the day announced for such registration.
- 10.2** Registration of the students will be organized by the Heads of the Departments concerned.
- 10.3** A student, who does not register on the day announced for the purpose may be permitted, in consideration of any compelling reason, late registration within the next three working days on payment of a prevalent additional late fees as prescribed by the university. Normally no late registration will be permitted after the third working day from the scheduled date.
- 10.4** Only those students will be permitted to register who have cleared all University dues of the previous semester and made all required advance payment of University for the current semester for which they are registering.
- 10.5** A student of M. Tech Program may be allowed to withdraw temporarily (become non-resident) on the recommendation of his supervisor and the Head of the Department and with the approval of the Vice-Chancellor after he has successfully completed two/three semesters of the course work continuously. A student so permitted may submit his dissertation later, provided that in such a case the project work must be completed under the guidance of his supervisor after re-joining the University on payment of the prescribed fees. He must work for one full year after re-joining on his project work. The dissertation must be submitted within 5 years from the date of his first admission.
- 10.6** A student withdrawing himself, under the provisions of para 10.5 above, before the prescribed date for submission of dissertation shall not be allowed to submit his dissertation along with regular students of his batch.
- 10.7** Students who discontinued their studies without prior permission before completing the First (Autumn), Second (Spring) and Third semester course work shall be deemed to have abandoned his studies and their names will be struck off the rolls of the University with effect from the date of absenting from the classes.

11. Grading System

- 11.1** As a measure of students' performance a 7-scale grading system using the following letter grades and corresponding grade points per credit shall be followed:

<u>Letter Grade</u>	<u>Performance</u>	<u>Grade point</u>
Ex.	Excellent	10
A	Very good	9
B	Good	8
C	Fair	7
D	Average	6
E	Pass	5

FF	Fail	0

In addition, there shall be two transitional grading symbols which can be used by the examiners to indicate the special position of a student in a course.

II – for “Incomplete assessment”.

XX – for “Debarred”.

11.2 A semester Grade Point Average will be computed for each semester. The SGPA will be calculated as follows:

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

Where C_i = Credit for the course, G_i = the Grade Point obtained for the course and the summation is over all the courses taken in that semester and n is the number of courses registered for the semester.

11.3 Starting from II semester a Cumulative Grade Point Average (CGPA) will be computed for every year at the end of every semester.

The CGPA would give the cumulative performance of the student from the first semester up to the end of the semester to which it refers and calculated as follows.

$$CGPA = \frac{\sum_{k=1}^m S_k \times C_k}{\sum_{k=1}^m C_k}$$

Where ‘ m ’ is the total number of semesters under consideration. C_k is the total number of credits registered for during a particular semester. S_k is the SGPA of that semester.

11.4 The CGPA, SGPA and the grades obtained in all the subjects in a semester will be communicated to every student at the end of every semester.

11.5 Both SGPA and CGPA will be rounded off to the second place of decimal and recorded as such. Whenever these grade point averages are to be used for the purpose of determining the inter-se merit ranking of a group of students, only the rounded off values will be used.

11.6 When a student gets the grade ‘II’ for incomplete assessment for any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated ignoring this (these) subject(s). After the ‘II’ grade(s) has (have) been converted to appropriate grades, the SGPA and CGPA for the semester will finally be recalculated after taking into account these grades.

11.7 When a student gets the ‘FF’ grade in any subject during a semester, the SGPA and the CGPA from that semester onwards will be tentatively calculated, taking only

‘zero point’ for each such ‘FF’ grade. After the ‘FF’ grade has been substituted by better grades during a subsequent semester, the SGPA and CGPA of all the semesters starting from the earliest semester in which the ‘FF’ grade has been updated will be recomputed and recorded to take this change of grade into account.

12. Awarding of Grades

- 12.1** There will be continuous assessment of a student’s performance throughout the semester and grades will be awarded by the teacher concerned or by the appropriate committee appointed for the purpose.
- 12.2** In the case of theory subjects:
- The periodic tests, and end semester examinations will be conducted by the University as per the schedule notified in the academic calendar.
 - For theory subjects, the final grades will be awarded on the basis of Periodic Tests, Comprehensive Viva and End-Semester examination according to the weightage specified in para 5.1.
 - The final grades for a subject must be submitted to the Head of the Department by the teacher concerned within Five Days of the date on which the end semester examination for that subject has been held.
- 12.3** For subjects like laboratory/design, workshop practices, etc. the evaluation will be based on the weightage as specified in para 5.2.
- 12.4** A Seminar/Project evaluation based on the weightage as specified in para 6.1.
- 12.5** In converting the percentage of marks obtained by the students to letter grades the following grading system will be used. The numerical score awarded shall correspond to a letter grade according to the following table.

<u>% of Numerical marks</u>	<u>Grade</u>
91 % and above	Ex
81 % or above but less than 91 %	A
71 % or above but less than 81 %	B
61 % or above but less than 71 %	C
51 % or above but less than 61 %	D
45 % or above but less than 51 % (Theory)	E
Below 45 %	FF

13. Examinations

- 13.1** Students will be permitted to appear in the examinations of only those subjects for which they have registered themselves in the beginning of a semester.
- 13.2** A student can appear for re-examinations in the subject(s) concerned in which he/she gets ‘FF’ grade. The re-examinations pertaining to both even and odd semesters will be conducted as per the schedule notified in the academic calendar. In re-examination the student will be given one grade lower than the actual performance grade except in the case of Grade ‘E’ which will remain unchanged. The student will apply in a prescribed form together with necessary fees in order to appear in the re-examinations.

- 13.3** Students with FF grades also have an option to re-register for the subject (s) in which they had failed, in the following Autumn Semester or Spring semester. In such a case they will be entitled to full credit according to performance at the examination.
- 13.4** A student whose performance in any of the parts of the project work has been unsatisfactory, may be assigned additional work on the same problem or assigned a new problem by the Supervisor. If the student is assigned additional work then he/she will have to complete the work and appear at Viva-voce as per the schedule announced by the Controller of Examinations. If the student is assigned a new problem on account of any reason, the student will have to submit the dissertation and complete the viva-voce by 31st December of that calendar year. The student will not be eligible for scholarship during the extended period of his stay but will have to pay project prescribed fees during the extended period of stay.

14. The incomplete grade 'II' and debarred grade 'XX'

- 14.1** The grade 'II' may be temporarily given to a student who is unable to appear in the end-semester examination because of:
- Illness or accident which disables the student from appearing in the examination. This must be duly supported by a proper certificate issued by a competent Doctor/Medical Officer and approved by the respective Heads of the Departments.
 - A calamity in the family at the time of the examination which, in the opinion of the Head of the Department required the student to be away from the campus.
- 14.2** In an exceptional case, if a student is unable to appear at a periodic test for any of the compelling reasons mentioned above, the teacher concerned, may conduct a test with same weightage with the prior approval of Head of the Department.
- 14.3** A student who has been awarded grade 'II' in a subject in the end-semester examination shall have the option to either,
- appear at a re-examination to be held by the Department by filling in the application in prescribed form together with payment of necessary fees. In the re-examination the student will be awarded actual grade obtained from the performance in the examination. Or
 - re-register for the subject in the subsequent semester in which it is offered. In such case the student is entitled to full credit in accordance with the performance.

No re-examination will be held in laboratory/Design subjects. The student has to re-register during a regular semester.

14.4 Debarred grade 'XX'

A student who

- is absent for a major part of a semester, or
- does not complete a major part of the laboratory / design/ seminar work etc, or
- does not appear in the periodic tests without any acceptable ground

shall be awarded grade 'XX' and he shall be debarred from appearing at the end semester examination of the corresponding subject (s).

- 14.5** A student who is debarred from appearing at an end-semester examination for reasons as specified by para 14.4 will be required to re-register for the subject(s) in the next semester when they are offered by the Department, subject to other conditions of the regulations.

15. Graduation Requirements

- 15.1 In order to qualify for a M. Tech Degree of the University, a student must
- Have completed all the credit requirements for the degree, as prescribed by the Academic Council, with grade 'E' or a higher grade in each of the subjects etc. for which the student registered in all the semesters.
 - Have obtained a CGPA of 6.00 or more at the end of the semester in which the student completes all the requirements (including the dissertation), for the degree.
 - A student securing CGPA below 6.6 at the end of 4th semester of M. Tech programme will be awarded 'Second Division'. A student securing CGPA of 6.6 and above but below 7.5 will be awarded 'First Class' and a student securing CGPA of 7.5 and above will be awarded 'First Class with Distinction'.
- 15.2 A student who has qualified for the degree will be admitted to it only after the student has cleared all University dues, if any, outstanding against him/her and has returned all library books borrowed by him/her and also returned instruments, Department library books etc. in good condition.

16. Conduct and Discipline

Students shall conduct themselves within and outside the precincts of the University in a manner befitting the students of a Technological University of a state.

17. Relaxation

The Academic Council may, under exceptional circumstances, consider any case of a student having a minor deficiency in respect of any of the requirements stated in these regulations and relax the relevant provision of these regulations on the merit of the case. The grounds on which such relaxation is granted shall invariably be recorded and cannot be cited as precedence.

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APPENDIX – I

RULES REGARDING CONDUCT AND DISCIPLINE

Following rules shall be in force to govern the conduct and discipline of all students:

- The students shall show due respect to the teachers of the University/ Institute, the Rector of the hall of Residence, the Sports Officers of the Gymkhana and the Officers of the National Cadet Corps; proper courtesy and consideration should be extended to the employees of the University and the Hostels. They shall also pay due attention and courtesy to visitors.
- No married accommodation shall be provided to any student. The following acts of omission and / or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:
 - Ragging

- Furnishing false statement of any kind in the form of application for admission or for award of scholarship etc.
- Displaying lack of courtesy and decorum: resorting to indecent behavior anywhere within or outside the campus.
- Willfully damaging or stealthily removing any property/belonging of the University/ Institute / Hostel or fellow students.
- Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
- Adoption of unfair means in the examinations.
- Organizing or participating in any group activity in company with others in or outside the campus without prior permission of Registrar.
- Mutilation or Unauthorized possession of library books
- Resorting to noisy and unseemly behavior, disturbing studies of fellow students.
- Not intimating his/her absence to the Rector of the Hostel before availing any leave.

Commensurate with the gravity of the offence the punishment may be reprimand, fine, expulsion from the Hall, debarment from an examination, rustication for a specified period or even outright expulsion from the University.

4. For an offence committed in a Hall of Residence, in the Department or a classroom and elsewhere, the Chief Warden or the Head of the Department, and the Registrar respectively shall have the authority to reprimand or impose fine or take any other suitable measures. All cases involving punishment other than reprimand shall be reported to the Chairman of the Standing Disciplinary Committee.
5. All major acts of indiscipline, which may have serious repercussion on the general body of students and /or which may warrant a uniform and more formalized nature of investigation, shall be handled by the Standing Disciplinary Committee for all PG (M. Tech) Programme appointed by the Vice-Chancellor.

The Standing Disciplinary Committee consists of the following ex-officio and other members:

- Registrar – Chairman
- Chief Rector
- Rector of the Hall of Residence of which the student concerned is a resident.
- One member of faculty nominated by the Vice-Chancellor, by rotation for two years.
- One of the student representatives to be nominated by the Vice-Chancellor for one year.
- The Asst. Registrar/ Superintendent (Student Section) – Member Secretary

In addition, the Chairman may invite any other person(s) to be associated with the proceedings of a particular case, if his/her participation is considered necessary in disposing of the matter. Recommendation of the Committee, which will include the suggested punishment in cases of guilt proven, will be forwarded to the Vice-Chancellor for necessary action.

6. Cases of adoption of unfair means in an examination shall be dealt with by the **Committee on Examination Malpractice** consisting of the following members:
 - a) One senior faculty member nominated by the Vice-chancellor will be the Chairman
 - b) Three Heads of the Department nominated by the Vice-chancellor – Member

- c) Principal – IoPE - Member
- d) One Legal Expert (if required for a particular case) – member (by Invitation)
- e) Controller of Examinations - Member- Secretary

The committee shall recommend appropriate measures in each case to the Vice-Chancellor for awarding the punishment.

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