

ORDINANCE

FOR

THE DEGREE

OF

MASTER OF TECHNOLOGY

(M.Tech.)

SHOBHIT UNIVERSITY

Modipuram, Meerut

January 2008

Approved in Academic Council Meeting held on January 12, 2008.

APPLICABILITY:

This ordinance shall apply to all programmes leading to Master's degrees in Technology.

1. DEFINITIONS:

1. **Academic Programme/ Programmes** shall mean a programme of courses and/or any other component leading to a Master's degree in Technology.
2. **An Academic Year** is a period of nearly 12 months devoted to completion of requirements specified in the Scheme of Teaching and the related examinations.
3. **Board of Studies (BoS)** shall mean the Board of Studies of the School concerned.
4. **Course** means a component of the academic programme, carrying a distinctive code no. and specific credits assigned to it.
5. **University** shall mean Shobhit University.
6. **External examiner** shall mean an examiner who is not in the employment of the University.
7. **Semester System** – A programme wherein each academic year is apportioned into two parts known as semesters.
8. **Student** shall mean a person admitted and registered for a programme in the Schools of the University.

2. ADMISSION

- The University will permit admission and award of M.Tech degrees in only such courses which are duly approved by the Academic Council of the University.
- Admission to M.Tech First Semester will be made as per the rules prescribed by the Academic Council of the University.
- Admission on migration from any other university to the university is not permitted. However, a student of constituent Institution/College enrolled in any other university may be allowed to migrate to the University provided that he/she has failed. He/she will continue his/her study in the same Institution/College where he/she was previously studying.

3. ELIGIBILITY FOR ADMISSION

B.Tech. or an equivalent degree in the allied branch of Engineering with a minimum of 55% marks from a recognized University

OR

MCA or M.Sc. degree in a related branch with 60% or higher aggregate marks from a recognized University.

4. CURRICULUM

M.Tech. courses shall be of any one of the following types:

- (a) **M.Tech. (Residential)**: It shall be a regular four-semester course in which students will be required to spend the entire study duration in the University campus or the Industry/ Institution/ R&D Organization where they shall be doing their dissertation/ project work

- (b) **M.Tech. (Week-end):** It shall be a regular four-semester course specially run by the University for working teachers, persons employed in Industry or Research and Development Organizations, who have a 5-day working week. The programme consists of three semesters of coursework in the University campus and one semester of dissertation/ project work in the University or in the Industry/ Institution/ R&D Organization. Number of contact hours in each subject will be the same as that of Residential M.Tech. course. A candidate shall normally be required to submit a no objection certificate from his/her employer for this course.
- (c) **M.Tech. (Part Time):** It shall be a six-semester part-time course meant for serving engineers/ teachers of the neighboring areas who can attend the classes during morning or evening hours only. A candidate shall normally be required to submit a no objection certificate from his/her employer for this course.

5. PROGRAMMES CONTENT & DURATION

- (a) A Master's Degree programme shall comprise of a number of courses and/or other components as specified in the Teaching & Examination Scheme of the concerned programme duly approved by the Academic Council.
- (b) The minimum period required for completion of a programme shall be the programme duration as specified in the Teaching & Examination Scheme for the concerned programme.
- (c) The maximum permissible period for completing a programme for which the prescribed programme duration is **n** semesters, shall be **(n+2)** semesters. All the programme requirements shall have to be completed in **(n+2)** semesters. Under very special circumstances the duration of the total period may further be extended by **2** semesters with the approval of the Vice Chancellor. This excludes the period of expulsion or suspension by the University / medical leave.
- (d)
 - (i) A student may be allowed to "audit" a course(s) not included in the Teaching & Examination Scheme, or one of the elective course(s) in the Teaching & Examination Scheme, which the student is not opting for as a credit course.
 - (ii) The University may ask a student to audit one or more courses as pre-requisite courses so as to make up any deficiency at the entry level.
 - (iii) Such audited course(s) shall be shown in the final mark-sheet under a distinct head of "Audited Course(s)" provided the attendance requirement of the course is duly certified to have been met by the concerned teacher(s). However, a student shall neither be entitled to any credits for such course(s), nor these shall be considered for the purpose of declaration of results.
- (e) Except for the first semester, registration for the next semester will be done during the first week of the next semester.
- (f) From the second semester onwards, all students have to enrol on a specified day at the beginning of a semester. A student is eligible for enrolment if he has paid all the dues for the semester.

6. MINIMUM REQUIREMENT TO CONTINUE IN THE PROGRAM

- (a) A student is required to earn a minimum of 10 credits in the first semester and a total of 24 credits at the end of second semester. Thereafter he/she needs to maintain an average of 13 credits per semester except in the last semester, in order to continue the course.
- (b) A student should have a minimum CGPA of **5.0** calculated for the courses successfully completed at the end of each semester. If CGPA continues to be less than 5.0, and/or he/she could not earn average 13 credits, his/her name will be struck off.

7. CANCELLATION OF ADMISSION

The admission of a student at any stage of study shall be cancelled if:

- (i) He / She is **not** found qualified as per the eligibility criteria prescribed by the University.
OR
- (ii) He / She is involved in ragging.
OR
- (iii) He / She is found involved in creating indiscipline in the School/Institute or in the University.

8. SEMESTER DURATION

- (a) An academic year shall be of two semesters, each of about 20 weeks duration. There shall be a break of 3 to 5 weeks after autumn semester and 6 to 10 weeks after the spring semester.
The Academic Calender shall be notified by the University each year before the start of the Academic Session.

- (b) The academic break-up of the semesters shall be as follows:

Theory and Practical Classes (including Mid-Sem. tests)	16 – 18	Weeks
Semester-end Examination, including Practical / Laboratory Examination	- 02 - 04	Weeks

9. BOARD OF STUDIES

The constitution of the Board of Studies of each School shall be:

- (a) The Director of the School (Chairperson)
- (b) Two Professors
- (c) Two Associate Professors
- (d) Two Assistant Professors
- (e) Four Expert Members

10. ACADEMIC PROGRAMME COMMITTEE

- (a) There shall be an Academic Programme Committee in the School/ Department/ Constituent Institutions of the University.
- (b) All the teachers of a School of Study shall constitute the Academic Programme Committee of which the Director of the School shall act as its Chairperson. This Committee shall coordinate the implementation of the courses for optimum utilization of resources and shall also take care of the coordination of the School's programmes with the other programmes run by the different Schools of the University.
- (c) The Academic Programme Committees shall also perform other tasks as assigned to it by the Board of Studies of the concerned School of the University.
- (d) The Academic Programme Committee shall meet as and when required but at least once every semester. The Chairperson of the Committee will convene the meetings.

11. ATTENDANCE

All students are normally expected to have attendance of 100% in each subject (Lectures, Tutorials and Practicals). The attendance can be condoned upto 25% for genuine reasons. The Director of the concerned School/ Programme Coordinator may give further relaxation up to 10% on account of illness and other pre-approved occasions. Vice Chancellor may further condone attendance shortage up to 5% on genuine grounds. **However, under no circumstances, a student with an attendance of less than 60% in a subject, shall be allowed to appear in the semester-end examination of that subject.** Provided that the late admitted students in the first semester of any course maintain at least 80% attendance (including medical and other reasons) from the date of their admission.

Director of the School / Programme Coordinator shall announce the names of all such students who are not eligible to appear in the subject(s) of semester-end examination, at least one week before the start of the semester-end examination and simultaneously intimate the same to the Controller of Examinations.

In case any student appears in the Examinations by default, who in fact has been detained by the Institute, his/ her result shall be treated as null and void.

12. EVALUATION

Examinations of the University shall be open to all regular / re-admitted/ ex-students who have undergone a course of study in the University for a period specified for that programme of study in the Teaching & Evaluation Scheme and are not debarred from appearing in the semester-end examinations as provided in the applicable Ordinance of the University.

- (a) The overall weightage of a course in the Syllabi shall be determined in terms of credits assigned to the course.
- (b) The distribution of weightage for various components of evaluation shall be as defined in the Teaching & Evaluation Scheme.

- (c) Conduct of semester-end examinations
- (i) All semester-end examinations shall be conducted by the Controller of Examinations.
 - (ii) The schedule of examination shall be notified by the Controller of Examinations at least 10 days prior to the first day of the commencement of semester-end examinations.
 - (iii) For theory as well as practical examinations and project report/ training report etc, the concerned subject teacher(s) shall be the examiners. In case any external examiners are desired, then the same shall be appointed by the Controller of Examinations with the recommendations of the Director of the concerned School / Programme Coordinator.

(d) **Continuous Evaluation:**

A student shall be evaluated for academic performance in a course through tutorials, homework, assignments, quizzes and mid semester tests, practical laboratory work and final theory and practical examination. Evaluation of a course is based on the weightage assigned to various components of the course examination scheme. Components are designated as under:

CWM Class Work Marks will be awarded on the basis of attendance (10%), assignments and quizzes (5%) taken in the class. **(Weightage: 15%)**

MSM Mid Semester Examination Marks.(Two tests will be conducted during the semester and the average of the two will be considered to finalize the marks). **(Weightage: 25%)**

PRM Practical Sessional Marks will be awarded on the basis of attendance in practical classes, practical records etc. There shall be no mid semester test in laboratory class. **(Weightage: 40%)**

Student has to secure minimum of 50% marks in Sessionals (CWM+MSM or PRM) in order to be eligible to appear for the end-semester examination. Names of such students debarred from appearing in the end-semester examination shall be notified by the Director's of the concerned Schools at least 3 days before the commencement of the examination.

FTM Final Theory Examination Marks **(Weightage: 60%)**

FPM Final Practical Examination Marks **(Weightage: 60%)**

The examiner shall set semester-end examination question paper and submit to the Controller of Examinations at least two weeks before the commencement of End-Term Examinations. Papers will be moderated by a moderation committee approved by the Vice-Chancellor. The examiner for the final examination may be one of the subject teachers of the concerned course in that semester.

- (e) The University shall have the right to call for the complete records of any teacher's evaluation and moderate the teacher's evaluation, if it deems fit.

- (f) Semester-end practical examinations shall be conducted by a Board of Examiners for each course duly approved by the Vice-chancellor. The Board shall consist of one or more examiners.
- (g) For any other type of examination, not covered by sub-clause (c) and (f) above, the mode of conduct of examination shall be as specifically provided in the Teaching & Evaluation Scheme, and in the absence of such a provision, it shall be decided by the Controller of Examinations on the recommendations of the Board of Studies / Coordination Committee concerned, with the approval of the Vice-Chancellor.
- (h) If a student has missed mid-semester/semester-end examination due to valid reasons like illness, injury, death of an immediate relative etc., he may be allowed to appear in a make-up examination for the missed paper provided he was eligible for the examination of that paper.
- (i) The complete results of a semester examination (including both the semester-end examination and teacher's continuous evaluation) shall be declared by the Controller of Examination after it is cleared by the Examination Results and Moderation Committee, specially constituted by the Vice-Chancellor for the purpose.
- (j) The award-list / grade-sheet containing the grades obtained by a student in various courses shall be issued by the Controller of Examinations, at the end of each semester, after the declaration of the result.

13. CRITERIA FOR PASSING COURSES, GRADES AND DIVISIONS

a) Grade Systems

The University will follow modern methods of continuous evaluation through a credit system. The system offers flexibility to progress at a pace commensurate with the capabilities of a student, subject to minimum credit requirements. There is no annual/semester pass or fail. The award system follows letter grades on a 10 points scale where the performance is measured in terms of weighted grade point averages (**SGPA**-Semester Grade Point Average and **CGPA**-Cumulative Grade Point Average).

A student has to satisfy minimum **CGPA** of **5.0** each semester and earn credit requirements duly approved by academic council, to be eligible for the award of degree.

b) Award of Grades

The students are continuously evaluated during the course and are awarded marks during the semester. At the end of the semester based on marks obtained following letter grades will be awarded on ten-point grade system as follows:

Performance in the semester	Grade (G)	Grade Points (GP)
Outstanding	A ⁺	10
Excellent	A	9
Very Good	B ⁺	8
Good	B	7

Above Average	C ⁺	6
Average	C	5
Satisfactory	D	4
Poor	E	2
Unsatisfactory	F	0
Incomplete	I	-
Satisfactory performance in Audit courses	AS	-
Unsatisfactory performance in Audit courses	AF	-

Evaluation of different components of a course shall be incorporated in the total marks as stated in the clause 12(d).

For less than 20 students in a course, the grades shall be awarded on the basis of natural cut off in the absolute marks as follows:

Marks	Grade
85 - 100	A ⁺
75 - 84	A
67 - 74	B ⁺
60 - 66	B
53 - 59	C ⁺
45 - 52	C
35 - 44	D
20 - 34	E
00 - 19	F

The grade boundaries may be marginally adjusted by grade moderation committee in view of natural gaps.

For more than 20 students in a course, the statistical method should be used with marginal adjustment for natural gaps. Awards of Grades using statistical methods, is as given below:

$$\begin{aligned} \bar{x} + 1.5\sigma &< A^+ \\ \bar{x} + 1.0\sigma &< A \leq \bar{x} + 1.5\sigma \\ \bar{x} + 0.5\sigma &< B^+ \leq \bar{x} + 1.0\sigma \\ \bar{x} &< B \leq \bar{x} + 0.5\sigma \\ \bar{x} - 0.5\sigma &< C^+ \leq \bar{x} \\ \bar{x} - 1.0\sigma &< C \leq \bar{x} - 0.5\sigma \\ \bar{x} - 1.5\sigma &< D \leq \bar{x} - 1.0\sigma \\ E &\leq \bar{x} - 1.5\sigma \end{aligned}$$

where \bar{x} is the mean (class average) and σ is the standard deviation of marks obtained by the students in a course. It is assumed that graph between marks/grades vs number of students will be Gaussian in nature. Grade boundaries could be marginally adjusted by the grade moderation committee.

‘A⁺’ (A plus) grade shall not be awarded to more than 10 % students.

‘E’ grade denotes poor performance in the course. Such student has to re-appear in the semester-end examination, without attending a course and his old sessional marks are to be carried forward, until a passing grade is obtained. The weightage of E-grade will be

counted in the calculation of SGPA but will not be counted in the calculation of CGPA. **E** grade shall also be awarded to students who did not appear in the end semester examination or performed very poorly in the same provided he has secured minimum 50% marks in **CWM** and **MSM** combined together in case of theory papers and minimum 50% marks in **PSM** for practical/laboratory work.

'F' grade denotes unsatisfactory academic performance. F grade will be awarded to students whose attendance is poor (less than 75% / 60% as the case may be) in a course or if he has secured less than 50% marks in the Sessionals. Students who obtain F grade have to repeat the course as an extra course during the next semester or during summer/winter break, whenever the course is offered.

Grade **'AS'** and **'AF'** are awarded in Audit course and are not counted in the calculation of **SGPA/ CGPA**.

'I' grade refers to an incomplete grade and is required to be converted into a regular grade with in 30 days of the declaration of the result. This may be awarded due to any unforeseen conditions on the approval of competent authority.

Grades earned in extra curricular activities will not be counted in the calculation of SGPA & CGPA.

Due to subjective nature of evaluation of practicals /laboratory work/ seminars/ summer training/ dissertation etc., award of grades in such cases will be as follows:

$$\begin{aligned} \bar{x} + 1.5\sigma &< A^+ \\ \bar{x} + 1.0\sigma &< A \leq \bar{x} + 1.5\sigma \\ \bar{x} + 0.5\sigma &< B^+ \leq \bar{x} + 1.0\sigma \\ \bar{x} &< B \leq \bar{x} + 0.5\sigma \\ \bar{x} - 0.5\sigma &< C^+ \leq \bar{x} \\ \bar{x} - 1.5\sigma &< C \leq \bar{x} - 0.5\sigma \\ \bar{x} - 3.0\sigma &< D \leq \bar{x} - 1.5\sigma \end{aligned}$$

E and **F** grades are awarded under conditions as described above.

c) Calculation of SGPA and CGPA

$$SGPA = \frac{\sum_{x=1}^n C_x \cdot GP_x}{\sum_{x=1}^n C_x}$$

where,

C_x = Number of credits assigned to the x^{th} course in a semester

GP_x = Grade Point earned in the x^{th} course

n = Number of course in the semester

$$CGPA = \frac{\sum_{i=1}^N C_i \cdot GP_i}{\sum_{i=1}^N C_i}$$

where,

C_i = Number of credits assigned in the i^{th} course

GP_i = Grade points earned in i^{th} course.

N = represents the number of courses in which student was registered and earned a grade D and above up to the semester for which CGPA is to be calculated.

14. Passing Grades:

- (a) Obtaining a **D** Grade in each course shall be essential for passing the course and earning its assigned credits. Any student, who secures less than a D Grade in a course, shall be deemed to have failed in that course.
- (b) (i) A student obtaining **E** Grade in a course shall be allowed to re-appear in a semester end examination of the course in the next semester till he clears that course, subject to the maximum permissible period of (n+2) or (n+4) semesters as mentioned in clause 5(c). Such students shall also have the option to repeat that course during summer/ winter/ regular semester whenever the subject is offered. However, students with **F** Grade in a subject shall have no other option than to repeat that course during summer/ winter/ regular semester.
- (ii) A student who has to reappear in a semester end-term examination in terms of clause 14(b)(i) above shall be examined as per the syllabus which will be in operation during the subsequent semester(s).
Students who are eligible to reappear in an examination shall have to apply to the Controller of Examinations through the School / Institution concerned to be allowed to reappear in an examination and pay the fees prescribed by the University.
- (iii) A student who has poor performance in a number of courses in a particular semester, he may at his option, take an academic break for one year/ semester, and re-register for either/ both the semesters of that academic year in the next academic year. Such a student may have the option of repeating any one or all the courses in the semester(s) and retain the credits already earned by him in the remaining course(s). For calculating the CGPA, determining the pass/ fail in a course and eligibility for the award of a degree, the revised improved Grade(s) obtained in the repeated course(s) will be taken into consideration.
- (c) A candidate who has earned the minimum number of credits prescribed in the concerned Teaching & Examination Scheme, shall be declared to have passed the programme, and shall be eligible for the award of the relevant degree or diploma. Teaching & Examination Scheme shall clearly specify the minimum credits to be earned to qualify for a degree or diploma. The credits included in

the Teaching & Examination Scheme of a programme should generally contain more credits than such minimum specified credits.

15. A) USE OF UNFAIR MEANS

All reported cases for use of unfair means in the examination shall be placed before a Standing 'Unfair Means Hearing Committee' for decision on case to case basis. The actions under the category of 'Use of Unfair Means' and procedure for dealing with such cases of suspected/ alleged/ reported use of unfair means shall be specified by the Academic Council.

B) STUDENTS GRIEVANCE COMMITTEE

In case of any written representation / complaints received from the students within seven days after completion of the examination regarding setting up of the question paper etc. along with specific recommendations of the course Co-ordinator & Director of the school, the same shall be considered by the Students Grievance Committee to be constituted by the Vice-Chancellor. The Vice-Chancellor shall take appropriate decision on the recommendations of the Students Grievance Committee, before the declaration of result(s) of the said examination.

16. AWARD OF DEGREE

A student shall be awarded a degree if:

- i) He/she has registered himself/herself, undergone the course of studies, completed the project report/ dissertation specified in the curriculum of his/ her programme within the stipulated time, and secured the minimum credits prescribed for award of the concerned degree/ diploma.
- ii) There are no dues outstanding in his/her name of a School of the University / constituent Institution.
- iii) No disciplinary action is pending against him/her.

17. Subject to the provisions of the Act, the Statutes and the Ordinances such administrative issues as disorderly conduct in examinations, other malpractices, dates for submission of examination forms, issue of duplicate degrees / diplomas, instructions to examiners, superintendents, invigilators, their remuneration and any other matter connected with the conduct of examinations will be dealt with as per the guidelines approved for the purposes by the Academic Council.

18. Notwithstanding anything stated in this Ordinance, for any unforeseen issues arising, and not covered by this Ordinance, or in the event of differences of interpretation, the Vice-Chancellor may take a decision after obtaining, if necessary, the opinion / advice of a Committee consisting of any or all the Directors of the Schools. The decision of the Vice-Chancellor shall be final.