

**ORDINANCES GOVERNING THE COURSES  
LEADING TO M. TECH/ M.PHARM DEGREE  
IN THE FACULTY OF ENGINEERING AND TECHNOLOGY**

**I. ADMISSION ELIGIBILITY**

- I.1 (a) A candidate who has obtained B. Tech/ B. Pharm or an equivalent degree from a recognised institute/ university in India or abroad approved by the University in the appropriate branch of Engineering shall be eligible for admission to the M. Tech/ M. Pharm course.
- (b) A candidate who has obtained B. Tech or an equivalent degree in Electronics Engineering or allied branches or in Electrical Engineering shall be eligible for admission to M. Tech in both Electronics Engineering and Electrical Engineering specialisations, provided the candidate has an appropriate background knowledge in the specialisation for which he or she has applied.
- (c) A candidate who has obtained B.Tech. or an equivalent degree in Ceramic/Civil/ Electronics/Electrical/Mechanical/Metallurgical Engineering/ Chemical Engineering & Technology/Materials Science & Technology/ Silicate Technology shall be eligible for admission to M.Tech. in Ceramic Engineering, provided the candidate has an appropriate background knowledge in ceramic materials.
- (d) A candidate who has obtained B. Tech or an equivalent degree in any branch of Engineering shall be eligible for admission to the interdisciplinary courses of M. Tech in Systems Engineering and M. Tech in Industrial Management, provided that the candidate has an appropriate background knowledge in the specialisation for which he or she has applied.
- (e) A candidate who has obtained B. Tech or an equivalent degree in Aeronautical/ Ceramic/ Chemical/ Civil/ Computer/ Electrical/ Electronics/ Mechanical/ Metallurgical/ Mining Engineering shall be eligible for admission to the interdisciplinary course of M. Tech in Materials Science and Technology. A candidate with M. Sc degree in Materials Science/ Physics/ Chemistry and who has passed B. Sc/ B. Sc (Hons.) Examination with Physics, Mathematics and Chemistry/ Computer Science/ Statistics shall also be eligible for admission to the above course, provided that he or she has obtained at least 60% marks at the M. Sc Examination.
- (f) A candidate who has obtained B.Tech or an equivalent degree in Biomedical/ Ceramic/ Chemical/ Computer/ Electrical/ Electronics/ Mechanical/ Metallurgical Engineering or M.Sc in Physics shall be eligible for admission to the interdisciplinary course of M. Tech in Biomedical Engineering. However, a candidate with M. Sc degree must have obtained at least 60% marks at the M. Sc Examination.
- (g) A candidate who has obtained B. Pharm, B. Tech or an equivalent degree in Biochemical/ Biotechnology/ Chemical/ Food Engineering or M.Sc degree in Biochemistry/ Biotechnology/ Microbiology or in Chemistry with specialisation in Biochemistry or Physical Chemistry shall be eligible for admission to the interdisciplinary course of M. Tech in Biochemical Engineering. However, a candidate with M.Sc degree must have obtained at least 60% marks at the M. Sc Examination.
- I.2 Notwithstanding clause I.1, only such a candidate who has a valid GATE (Graduate Aptitude Test for Engineering) score in the appropriate field shall be eligible for admission to the M. Tech/ M. Pharm courses.
- I.3 A limited number of candidates sponsored by the Government Departments/ Public Sector undertakings/ Universities/ Colleges/ R & D Laboratories/ Educational Institutions of repute as well as well established Industries, who fulfill the minimum eligibility criteria as per Clause I.1, are eligible for admission to the M. Tech/

M. Pharm courses under supernumerary quota, provided that the candidates have the work experience of five years or more and that the sponsors give an undertaking, in the specified format of the University, that the sponsors would permit the candidates to rejoin them after the completion of the course or at least two semesters of the course.

Such sponsored candidates are exempted from the requirement of having a valid GATE score for admission.

I.4 A limited number of foreign nationals, who fulfill the minimum eligibility criteria as laid down in Clause I.1, and whose applications are submitted either through the Indian Mission of their respective countries or through the Missions of their respective countries in India, will be considered for admission to the M. Tech/ M. Pharm courses under supernumerary quota, in addition to those eligible under Clause I.3, according to the following guidelines:

- (i) Those foreign candidates who are selected under various scholarship schemes, either of the Ministry of Human Resource Development or the Ministry of External Affairs will be given admission on the recommendation/ sponsorship of the respective Ministries and the confirmation of their admission sent directly to the concerned agencies sponsoring their admission.
- (ii) The applications of self-financing foreign candidates have to be routed through the Ministry of External Affairs for clearance and followed thereafter through the Ministry of Human Resource Development for 'no objection certificate'.

The candidates of foreign nationality are exempted from the requirement of having a valid GATE score and appearing in any test, interview, etc. for admission.

## **II. SCHEME OF COURSES OF STUDY AND EXAMINATIONS**

II.1 The duration of M. Tech/ M. Pharm course, counted from the date of commencement of classes, shall be of

- i) 24 months (Four Semesters) for 'regular' (full-time) students (as defined in Clause II.2 (a)), and
- ii) 36 months (Six Semesters) for 'part-time' students (as defined in Clause II.2 (b)).

II.2 (a) A 'regular' (full-time) student is one who has pursued a regular course of study as a full-time student and who is eligible to appear in the examination in a semester. However, a regular student who has filled up the examination form but has failed or failed to appear on genuine medical grounds in the examination, can appear in the immediately following supplementary examination as an ex-student.

(b) A permanent teacher of the University admitted to the course, who has also to perform such other duties as assigned to him by the Head of the Department/ Coordinator of the School while pursuing the course, shall be known as a 'part-time' student.

II.3 A part-time student shall choose, in consultation with the Head of the Department/ Coordinator of the School, the number of subjects he or she has to pursue in a semester, such that the duration of course does not exceed the limit prescribed in Clause II.1. Such a student has to appear for the odd and the even semester examinations along with regular students in the chosen subjects.

- II.4 The subjects and distribution of credits for each semester, and the syllabi for various subjects are prescribed in *Annexure-1*.
- II.5 (a) Students admitted to a semester shall register themselves in the beginning of the semester.
- (b) In each semester, a last date shall be fixed and notified by the Institute in the beginning of the semester after which admission/ re-admission/ registration of students shall not be ordinarily made. This is applicable also for the students governed by Clauses II.9 (b) and (c).
- II.6 (a) Students admitted to any of the courses of study shall pursue in each semester the regular course of lectures, tutorials, sessional work, field work, practicals, drawing, design, project, dissertation, etc. as well as satisfy all other relevant conditions laid down in these Ordinances in order to be eligible to appear in the examination at the end of the semester.
- (b) A student who fails or fails to appear on genuine medical grounds, in I and/ or II Semester examination(s) is eligible to appear in the immediately following supplementary examination(s). However, if he or she is unable to pass I and II Semesters even after appearing in the supplementary examination(s), he or she shall not be permitted to continue the M. Tech/ M. Pharm course.
- (c) A student who fails in III Semester shall appear within three months of the declaration of the result in the supplementary examination by presenting a revised 'seminar on dissertation' and/ or by submitting a revised report for 'dissertation-interim evaluation.'
- (d) A student who fails in IV Semester shall appear within three months of the declaration of the result in the supplementary examination by presenting a revised 'dissertation – open defence' and/ or by submitting a revised dissertation for 'dissertation – evaluation.'
- II.7 (a) I and III Semester examinations shall be held ordinarily in November/ December and II Semester examination shall be held ordinarily in April/ May in every academic session.
- The dissertation shall be submitted for 'dissertation – evaluation' ordinarily at the end of IV Semester and 'dissertation – open defence' shall be held soon after the submission of the dissertation.
- (b) I and II Semester supplementary examinations shall be held ordinarily in July. However, the dates for the III and IV Semester supplementary examination(s) can be normally within three months of the declaration of the result of the concerned semester examination(s).
- II.8 A student shall apply to the Registrar/ Controller of Examinations, Banaras Hindu University in a prescribed form for permission to appear in a semester examination. His or her application shall be submitted through proper channel to the Registrar/ Controller of Examinations at least six weeks before the commencement of the examination.
- A student shall apply separately to appear in a supplementary examination for each semester along with prescribed examination fee.
- II.9 (a) The topic of dissertation for each student shall be allotted in the second semester. The topic will normally be the same for III and IV Semesters. However, a

committee constituting the Supervisor and the Board of Examiners of the Department/ School may permit minor modifications in the topic.

- (b) A student can pursue part of dissertation work at an R&D/ industrial organisation of standing, to be referred to as ‘external centre,’ under the joint supervision of the supervisor(s) of the Department/ School, to be designated as ‘internal supervisor(s),’ and the supervisor(s) of the external centre, to be designated as ‘external supervisor(s).’ However, such joint supervision shall be allowed with the permission of the Head of the Department/ Coordinator of the School on the recommendation of the internal supervisor(s) and the consent of the external supervisor(s). Such a student shall work for his or her dissertation in the Department/ School for a period of at least 4 (four) months during the third and fourth semesters put together. Further, he or she shall submit to the Head of the Department/ Coordinator of the School a monthly progress report of the work carried out by him or her at the external centre duly approved by the external supervisor(s) and forwarded by a competent authority of the external centre as well as by the internal supervisor(s).
  - (c) A student who does part of his or her dissertation work at an external centre as per Clause II.9 (b) shall register for III and IV Semesters in accordance with Clauses II.5 (a) and (b) and shall also appear for III Semester examination on the dates specified by the University and submit his or her dissertation at the end of IV Semester and appear at the ‘dissertation – open defence’ soon after the submission of dissertation.
  - (d) A student can take up gainful employment in an R&D/ industrial organisation of standing after passing I and II Semester examinations and can complete the M. Tech/ M. Pharm course by taking admission/ re-admission to III and IV Semesters of an academic year and pursuing the course as a regular student. However, the period for completion of the course for such a student shall not exceed 5 years from the date of his or her first admission to the M. Tech/ M. Pharm course and in no case he or she shall be entitled to Fellowship.
- II.10 (a) A student in each semester shall be evaluated on the basis of his or her performance in written, practical and oral tests, in tutorial and laboratory classes, in design, drawing, project work, field work, seminar, dissertation, etc. and in semester examinations as well as on the basis of his or her regularity, in accordance with Clause II.10 (b).
- (b) The distribution of weightage of the various components of evaluation for each subject shall be as follows:

*Theory:*

(i) Class quizzes, home assignments and regularity	.....	10%
(ii) At least two periodical tests each of 1 hour duration	.....	30%
(iii) Semester examination of not less than 3 hours duration	.....	60%
Total		100%

*Practical/ Project:*

(i) Course work	.....	50%
(ii) Semester examination	.....	50%
Total		100%

*Subjects where no class work is involved*

(Seminar on Dissertation, Dissertation – Interim Evaluation, Dissertation – Open Defence, and Dissertation – Evaluation)	.....	100%
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- (c) At the end of a semester, based on the evaluation as per Clause II.10 (a) and (b), a student shall be awarded a letter grade in each subject. For this purpose, there shall be seven grades – the first six (S, A, B, C, D, E) are the ‘passing’ grades and the last one (F) stands for the ‘failure’ grade. The following table gives the correspondence between the ‘grade,’ ‘merit’ and ‘grade point.’

Grade	Merit	Grade Point
S	Outstanding	10
A	Excellent	9
B	Very Good	8
C	Good	7
D	Average	6
E	Fair	5
F	Failed	0

In addition, there shall be a grade “P” indicating a passing grade with a grade point 4, which shall be awarded as per the grace rules applicable to the Institute. There shall also be a grade “T” awarded to a student in subject(s) in which he or she fails to appear in the examination of a semester course. The grade point for “T” shall be the same as that for “F.”

### III. DECLARATION OF RESULTS AND PROMOTION

- III.1 The academic performance of a student shall be evaluated on the basis of his or her grade in each subject, semester grade point average (SGPA) and cumulative grade point average (CGPA), the latter two calculated as per Clause III.2 (a).
- III.2 (a) At the end of a semester examination, a student shall be awarded a Grade Card showing the grades obtained by him or her in each subject, the semester grade point average (SGPA) and the cumulative grade point average (CGPA), the former (SGPA) being the average of the grade points awarded to a student in the semester, which shall be calculated as follows:

$$SGPA = \frac{\text{Sum of the products (Credits} \times \text{Grade points)} \\ \text{for all the subjects of the semester course}}{\text{Sum of the credits of all the subjects} \\ \text{of the semester course}}$$

The cumulative grade point average (CGPA) shall be calculated in a manner similar to that used for calculating SGPA, however, now taking into account all the subjects of all the semesters so far completed by the student.

- (b) The Grade Card shall also show the result of the student as “Semester Course Passed/ Failed,” as the case may be.

The Grade Card issued at the end of IV Semester, in addition, shall show the final result of the student; “M. Tech/ M. Pharm Course Passed in \_\_\_ Class with Honours,” or “M. Tech/ M. Pharm Course Failed.”

- (c) If equivalence between the SGPA/ CGPA and the percentage of marks needs to be drawn for the purpose of informing the results of a student to external agencies, the following conversion formula shall be used:

$$X = 10 Y,$$

where X is the equivalent percentage of marks and Y is the SGPA/ CGPA.

- III.3 (a) For passing I and II Semesters, a student must obtain a Grade of S, A, B, C, D, E or P in each subject and an SGPA of 5.00 or more.

For passing III Semester, a student must obtain a Grade of S, A, B, C or D in 'seminar on dissertation' as well as in 'dissertation - interim evaluation'.

For passing IV Semester, a student must obtain a Grade of S, A, B, C or D in 'dissertation - open defence' as well as in 'dissertation - evaluation.'

- (b) The final result of the Master's Degree Examination shall be declared on the basis of CGPA after IV Semester examination, as follows:

CGPA	CLASS
8.00 and above	- First Class with Honours
6.50 and above and below 8.00	- First Class
5.00 and above and below 6.50	- Second Class
Below 5.00	- Failed

- III.4 A student, who appears more than once in any subject of any examination forming a part of the course or does not submit dissertation within the period of 24 months from the date of commencement of classes (as per Clause II.1), shall not be ranked at the examination of that course of study irrespective of his or her performance.

A part-time student shall not be ranked.

- III.5 A student appearing in a supplementary examination due to not obtaining a passing grade in any subject(s) but securing the minimum SGPA required as per Clause III.3 (a) in a semester examination shall appear in the subject(s) in which he or she has failed and/or failed to appear. However, a student who has failed to secure the minimum SGPA for passing a semester as per Clause III.3 (a) shall appear in the supplementary examination of the concerned semester in the subject(s) in which he or she has failed and/ or failed to appear and in addition, he or she can opt for appearing in any number of theory subjects in the concerned semester, in which he or she has obtained grade 'P'.

- III.6 (a) A student admitted to I Semester examination shall be promoted to II Semester irrespective of whether he or she passes, fails or fails to appear on genuine medical grounds, in the examination.

- (b) A student shall be promoted to III Semester only after he or she passes I and II Semesters.

- (c) A student admitted to III Semester examination shall be promoted to IV Semester irrespective of whether he or she passes, fails or fails to appear on genuine medical grounds, in the examination. However, such a student shall be admitted to IV Semester examination only after passing III Semester examination.

#### **IV. PAYMENT OF EXAMINATION FEE**

- IV.1 A student shall apply to the Registrar/ Controller of Examinations in prescribed form along with prescribed 'examination fee' for permission to appear for an examination. If the application is in order, the Registrar/ Controller of Examinations shall issue the 'admit card' to the student entitling him or her to sit for the examination.

#### **V. ADMIT CARD**

- V.1 A student shall not be admitted into the examination room without his or her admit card issued by the Registrar/ Controller of Examinations (as per Clause IV.1). However, provisional permission for admission may be granted if the concerned officer is satisfied that the admit card will be subsequently produced by the student.
- V.2 The Registrar/ Controller of Examinations may on genuine ground issue a duplicate admit card on payment of prescribed fee.

#### **VI. LEAVE RULES**

- VI.1 A student is required to sign on all working days of the Institute in an attendance register to be kept in the concerned Department/ School. He or she is not entitled to any vacation of the Institute/ University. However, he or she can take leave for a period not exceeding thirty days in an academic year. Head of the Department/ Coordinator of the School will grant such leave; however, leave in III and IV Semesters, will be granted on the basis of the recommendation of the concerned internal supervisor(s).

#### **VII. INTER-UNIVERSITY ORDINANCES**

- VII.1 A student who is qualified under the foregoing ordinances for admission to the University and who is a member of some other Indian University shall not be admitted to the University or any constituent college thereof without the production of:
- (i) a migration certificate in original from the Institute he or she has last attended. In cases where no provision exists for the issue of migration certificate, the student is required to submit a certificate from the Head of the Institution concerned, to the effect that the migration certificate is not issued by the concerned institution. If, however, any other certificate is issued in lieu of migration certificate, the same should be submitted.
  - (ii) A certificate to the satisfactory conduct of the student, mentioning the highest examination he or she has passed and
  - (iii) a certified copy of all the entries against his or her name in the enrolment register of the University, if such a copy is obtainable.
- VII.2 A student of some other Indian University shall in any case be admitted only at the beginning of the particular course, which he or she proposes to take in the University.

#### **VIII. TUITION AND OTHER FEES**

Students shall pay tuition and other fees as per the fee structure applicable at the time of admission (prescribed in the M.Tech/ M.Pharm 'admission information booklet')

### Fee Structure for 2-Year M.Tech./M.Pharm. Programme:

Particular	Amount Rupees)
Tuition Fee	600.00
Academic Assessment Fees	700.00
Health Service Charges	270.00
Library Fee	1000.00
Computer Facility	1000.00
Dev. Of Lab. Facilities	3000.00
Maintenance of Institute Facilities	1200.00
Extra-Curricular Activities Fee	500.00
Hostel Rent	70.00
Fan Charges	25.00
Hostel Dev. & Maint. Fund	825.00
Boarder's Amenities Fee	280.00
Student's Aid Fund	100.00
Delegacy/Union Fee	40.00
<b>Total per Semester Except First Semester</b>	<b>9610.00</b>
Training & Placement Fee	1000.00
Alumni Activities	200.00
Enrolment Fee	50.00
Admission Fee	50.00
Lab. Caution Money	1000.00
Library Caution Money	1000.00
Mess Caution Money	1000.00
Fan Caution Money	1000.00
Laminated Identity Card	25.00
<b>Total at the time of Admission</b>	<b>14935.00</b>

**NOTE: For SARC Countries: US \$ 500+US \$ 100 + 14935.00 and for Non-SARC Countries: US \$ 600+US \$ 100 + 14935.00**

**M. Tech/ M. Pharm Course Structure****First Semester:**

<b>Subjects</b>	<b>Contact Hours/Week</b>	<b>Credits</b>
1. Departmental Core Subjects (Compulsory for all streams) (1-3 Subjects)	3-9	3-9
2. Departmental Elective Subjects (4-2 Subjects)	12-6	12-6
3. Practical	3-6	2-4
<b>Total of First Semester</b>	<b>18-21</b>	<b>17-19</b>

**Second Semester:**

<b>Subjects</b>	<b>Contact Hours/Week</b>	<b>Credits</b>
1. Open Elective (from other Departments / Schools)	3	3
2. Departmental Elective Subjects (4 Subjects)	12	12
3. Practical / Project	3-6	2-4
4. Seminar	2	1
<b>Total of Second Semester</b>	<b>20-23</b>	<b>18-20</b>

**Third Semester:**

<b>Subjects</b>	<b>Credits</b>
1. Seminar on Dissertation	5
2. Dissertation – Interim Evaluation	5
<b>Total of Third Semester</b>	<b>10</b>

**Fourth Semester:**

<b>Subjects</b>	<b>Credits</b>
1. Dissertation – Open Defence	5
2. Dissertation – Evaluation	10
<b>Total of Fourth Semester</b>	<b>15</b>
<b>Grand Total</b>	<b>60-64</b>

**Note:** Dissertation topics should be allotted to students in the second semester.