

## **R.32 Rules and Regulations for Masters Programmes**

### **1. Introduction:**

Provision of these regulations shall come into force with effect from the academic year 2024 - 2025 and shall be applicable to all **M.Tech./ M.Chem. Engg./ M.Pharm./ M.Sc./ MBA** programmes (unless otherwise stated) offered by the Institute.

- 1.1 Masters Degree Programmes offered by the institute are mentioned in the Admission Handbook published by the Institute before the start of every academic year.
- 1.2 Admission to Master Programmes will be based on the eligibility criteria and guidelines mentioned in the Admission Handbook.
- 1.3 The lateral entry in the Masters Programmes will be as per the regulation R.30 (B).
- 1.4 The provisions of these regulations shall be applicable to any new discipline that may be introduced from time to time at the master level.
- 1.5 The medium of instruction for all the Programmes offered in the Institute shall be English.

### **2. Admission**

- 2.1 Admission to Institute of Chemical Technology, Mumbai and other two campuses at Jalna and Bhubaneshwar shall be made in accordance with the rules and regulations of Government of India from time to time. Admissions are made on all India basis for all the Masters programmes, with reservations policy as per Government of India norms.
- 2.2 The admission criteria to all the M.Tech/M.Chem. Engg. Programmes (except M.Tech. in Bioprocess Technology, Food Biotechnology and Pharmaceutical Biotechnology programmes) is based on valid GATE score and entrance examinations conducted by the Institute. The admissions are given at three different levels.

- (a) **Level 1:** Admissions to the candidates having valid **GATE** score in the branch in which he/she desires to take admission will be given based on only valid **GATE** score in that branch. These candidates need not appear for entrance examinations conducted by the Institute. Admission process will begin with Level 1 admissions. Level 2 admissions will begin after completion of Level 1 admissions provided seats are vacant after Level 1 admissions.
- (b) **Level 2:** Admissions to the candidates having valid **GATE** score in the other branch other than the branch in which he/she desires to take admission will be given based on valid **GATE** score and the entrance examination conducted by the Institute. Candidates without valid **GATE** score will also be considered under Level 2 admissions. Such candidates will have to appear for entrance examination conducted by the Institute and Level 2 General Merit list will be prepared giving 70% weightage to GATE Score and 30% weightage to Institute entrance examination.
- (c) **Level 3:** Admissions to various M.Sc. Programmes are covered under Level 3 and will be based on Institute entrance examination. If the seats are vacant after Level 3 admissions, then admission may be offered to students having valid CUET/IIT JAM scores in the respective disciplines.
- (d) Detailed eligibility criteria for admission (Level 1 & 2) along with valid disciplines of GATE/GPAT/GAT B/CUET/IIT JAM/MAH MBA-CET for all the courses should be mentioned in the Handbook.

2.3 Admissions to M.Tech. in Bioprocess Technology, Food Biotechnology and Pharmaceutical Biotechnology Programmes are given based on valid **GAT B** score only. No entrance examination will be conducted by the Institute for such students. General Merit List will be prepared based on Valid **GAT B** score.

2.4 Admissions to M. Pharm Programme will be based on Valid **GPAT** score only. No entrance examination will be conducted by the Institute for such students. General Merit list will be prepared based on Valid **GPAT** score.

2.5 For MBA programme the admission under **Level 1** will be based on **MAH MBA-CET**.

2.6 The sanction of stipend will be as per the guidelines prescribed by the Ministry of Education (MoE), Government of India, from time to time.

- 2.7 If any time after admission, it is found that a candidate has not fulfilled all requirements stipulated in the offer of admission, in any form whatsoever, including possible misinformation etc., the Dean-Academic shall report the matter to the Vice-Chancellor recommending the cancellation of admission of the candidate.
- 2.8 The institute 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 studies on the grounds of indiscipline or any misconduct.
- 2.9 Candidates seeking admission to all the Masters Programmes should have passed the relevant degree with CGPA or equivalent marks as per the guidelines mentioned in the Admission Handbook.
- 2.10 Eligibility and other criteria for admissions to various Masters Programmes of the Institute will be reviewed and decided by the academic council from time to time and will be available in the Admission Handbook.

### **3. Course Structure**

- 3.1 An M. Tech. programme is of 4-semester duration, out of which 2 semesters is course work followed by two semesters of dissertation work.
- 3.2 The Departmental Academic Committee will discuss and finalize the exact credits offered for the respective master programme, the semester-wise distribution among them, as well as the syllabi of the departmental Masters Programmes along with course outcomes of each course, CO-PO mapping and pre-requisites, from time to time and with the approval of the departmental board of studies (BoS) recommend it to post graduate programme committee (PGPC) followed by the Academic Council.
- 3.3 The evaluation of theory courses will be as per the provisions of R.9.

### **4. Allotment of Guides**

In case of Masters degree Programmes by thesis, the allotment of guides to the students will be done using the following guidelines:

- 4.1 The allotment of guides for the students enrolled in a particular course will be done by the respective Head of the Department/Centre coordinator.

- 4.2 Each Department/Centre will make available the list of topics and the guides to the admitted students.
- 4.3 Students are required to fill in the option forms regarding choice of guides. Each student is required to give priorities from the complete list of available guides of the respective department/center.
- 4.4 The allotment of guides will be done based on the merit rank at the time of admission and the preferences given by the students. Equitable distribution of students to all available guides should be made.
- 4.5 No change of guides is permitted once the allocation of guides is completed.
- 4.6 No change of students is permitted once the allocation of students to guides is completed.

## **5. Appointment of Co-Guide/Caretaker Guide**

- 5.1 A Master degree student may be co-guided by one or more guides recognized by the respective Research and Recognition Committee (RRC).
- 5.2 Whenever there is a need for the appointment of a co-guide, the research supervisor will take the consent of the proposed co-guide. The research supervisor will request the RRC of the subject for which the candidate is registered, for the appointment of the co-guide, by providing suitable justification along with academic and professional credentials of the co-guide for the appointment of co-guide. The application for the appointment of co-guide will need to be made **no later** than the end of semester II of the Master degree course. Based on the recommendation of the RRC, the co-guide for the student would be appointed by the Dean (A.P.)
- 5.3 In case the research supervisor of the student(s) proceeds on leave for whatever reasons, for a period of one month or more and if there is no co-guide appointed for the student, the research supervisor should request for the appointment of a caretaker guide(s) from within the department for the student(s) to the respective RRCs. After receiving the consent from the proposed caretaker guide(s), the Chairperson of the respective RRC would recommend the appointment of caretaker guide(s). Based on the recommendations of the Chairperson of the respective RRC, the caretaker guide would be appointed by the Dean (A.P.)

## **6. Research Projects during the first year of the degrees**

- 6.1 In the first year of the Masters degree programme, there would be subjects of research projects. These would typically involve a literature survey about candidates own research topic and/or research area other than candidates own topic.
- 6.2 Students would be allotted ‘research projects’ by the respective Head of the Department/Centre coordinator administering the course.
- 6.3 As a part of the ‘research project’, the candidate is expected to submit a written report, as per the guidelines, before the deadline given by the respective Head of the Department/Centre coordinator administering the course.
- 6.4 Evaluation of the student in the subject of ‘research projects’ would be done along with the respective end semester examination of the theory subjects.
- 6.5 Evaluation of the student in the subject of ‘research projects’ would be done by a committee consisting of the supervisor of the research project along with one other member from the Department or an outside expert. Students would need to make a presentation about the work carried out in the research project to the committee. The evaluation would consist of evaluating the written report, typically, 60 – 70% weightage and a presentation 30 – 40% weightage.
- 6.6 Failure of the student in either submitting the report or absence during the presentation before the committee would be deemed as absence from the semester examination and would be given a letter grade ‘I’ as per the provision of R9. A repeat examination of the candidate may be conducted after a suitable duration of time. The candidate in such a repeat examination would have a penalty of one grade less as per provision of R9.
- 6.7 The evaluation of research projects will be based on following parameters:

<b>Criteria</b>	<b>Weightage</b>
Technical Content and Completeness of report	30%
Bibliography, illustration of table/Figures	10%
Analysis of literature	10%
Summary/conclusions	10%
Presentation	40%

## **7. Mid Term evaluation of the Research Progress during the second year of the degree**

- 7.1 There would be a mid-term evaluation of the progress of the candidate in the research work carried out by the student towards the end of semester III of the course.
- 7.2 For the purpose of the mid-term evaluation, a candidate is expected to submit a written report as per the guidelines given by the respective Head of the Department/Centre coordinator administering the course. The report would need to be submitted before the end of semester III of the two-year degree programme, typically before 31<sup>st</sup> December in the second calendar year of the Masters degree programme.
- 7.3 The mid-term evaluation progress of the research work of the student would be done by a committee consisting of the allotted research supervisor of the student along with one other member from the Department or an outside expert. Student would need to make a presentation about the progress of the research work carried out to this committee. The evaluation would consist of evaluating the written report, typically, 70 – 80% weightage and a presentation 20 – 30% weightage.
- 7.4 Failure of the student in either submitting the report or absence during the presentation before the committee would be deemed as absence from the semester examination and would be given a letter grade ‘I’ as per the provision of R9. A repeat examination of the candidate may be conducted after a suitable duration of time. The candidate in such a repeat examination would have a penalty of one grade less as per provision of R9.
- 7.5 The mid-term evaluation of research will be based on following parameters

<b>Criteria</b>	<b>Weightage</b>
Technical Content and Completeness of report	15%
Experiments performed and data generated	25%
Analysis of data and mathematical modelling if any (including interim inferences and conclusions)	15%
Future work plan in details	15%
Presentation	30%

## **8. Synopsis Submission**

- 8.1 Prior to the submission of the thesis, the candidate would need to submit the synopsis of the research work carried out. The format of the synopsis would be as per the guidelines issued from time to time by the Dean (A.P.)
- 8.2 Synopsis need to be submitted towards the end of the second year of the degree programme, about one month prior to the end of the second year of the degree programme, typically between the 16<sup>th</sup> – 30<sup>th</sup> June of the calender year.
- 8.3 The synopsis would be approved by the research supervisor followed by the thesis section, chairperson of the respective RRC and finally by the Dean (A.P.).
- 8.4 At the time of the synopsis submission, the research supervisor would need to recommend names of two external examiners, who would be experts in the area of the indicative research work. The names of the two external examiners would then need to be approved by the Chairperson of the respective RRC. One of the two examiners would be appointed as an examiner for the thesis by the Dean (A.P.)
- 8.5 The synopsis would be sent to the external examiner for his/her perusal and his/her consent for being the examiner would be taken.
- 8.6 In case the student (i) fails to submit the synopsis of the thesis or (ii) the research work carried out by the student is not sufficient enough as judged by the research sypervisor, the candidate would need to apply for an extension for a suitable period. The maximum possible extension can be given upto the 31<sup>st</sup> December of the calender year. Candidate would need to pay pro-rated academic fees for the extension period.
- 8.7 In case the student (i) fails to submit the synopsis of the thesis, or, (ii) the research work carried out by the student is not sufficient enough, as judged by the research sypervisor, even at the end of the extension period, the candidate would need to take re-admission into the second year of the degree programme, along with the next batch, and follow the timelines of the next batch of students. In case the candidate fails to submit the synopsis by following the timelines of the next batch of students, the student's registration would be cancelled.

## 9. Thesis Submission and Evaluation

- 9.1 Minimum 15 days after the submission of the synopsis, students can submit e-copy of the draft thesis.
- 9.2 Guidelines for preparation of the draft thesis would be issued from time to time by the Dean (A.P.)
- 9.3 The draft thesis would be approved by the research supervisor followed by the thesis section, chairperson of the respective RRC and finally by the Dean (A.P.).
- 9.4 In case the candidate fails to submit the draft thesis before the end of the second year of the degree programme, typically between the 15<sup>th</sup> – 31<sup>st</sup> July of the calendar year, the candidate would need to apply for an extension for a suitable period. The maximum possible extension can be given up to the 31<sup>st</sup> December of the calendar year. Candidates would need to pay pro-rated academic fees for the extension period.
- 9.5 In case the candidate fails to submit the draft thesis even at the end of the extension period, the candidate would need to take re-admission into the second year of the degree programme along with the next batch and follow the timelines of the next batch of students. In case the candidate fails to submit the draft thesis by following the timelines of the next batch of students, the student's registration would be **cancelled**.
- 9.6 The approved draft thesis would be sent to the appointed external examiner for evaluation.
- 9.7 After the evaluation of the draft thesis, the external examiner would need to submit a report on the draft thesis in the prescribed format. In addition, the research supervisor would also need to submit a report on the draft thesis in the prescribed format.
- 9.8 In case both the external examiner and the research supervisor judge the thesis as acceptable for the award of the degree, the research supervisor will seek an approval from the Chairperson of the RRC for conducting the open defence of the candidate.
- 9.9 The chairperson of the RRC would appoint a chairperson to conduct the open defence.
- 9.10 In case the external examiner and/or the research supervisor judges the thesis as unacceptable for the award of the degree, the candidate would need to resubmit the



draft thesis after a suitable period. The re-submitted draft thesis would need to be examined by the same external examiner.

- 9.11 Prior to the open defence the candidate would need to make suitable corrections and or modifications in the draft thesis based on the reports of the external examiner and the research supervisor.
- 9.12 The open defence of the candidate would be conducted in the presence of the research supervisor, external examiner, chairperson of the open defence and other faculty members / researchers who may be interested in attending the open defence. Candidates would need to make a presentation of the research work carried out at the time of the open defence.
- 9.13 Candidates would be examined based on the draft thesis, corrections made in the thesis and the presentation made by the candidate.
- 9.14 Based on the performance of the candidate in the open defence, the external examiner, research supervisor and chairperson of the open defence would evaluate the candidate as per the prescribed rubrics and recommend the submission of the final thesis.
- 9.15 Candidate would need to make the necessary modifications in the draft thesis and submit (i) final thesis and (ii) List of corrections / changes made in the draft thesis within one month of the conduct of the open defence.
- 9.16 The research supervisor would approve the final thesis as acceptable. The final thesis would then be approved by the chairperson of the RRC and the Dean (A.P.) for the candidate to be eligible for the award of the Master degree.
- 9.17 In case the candidate fails to submit the final thesis within the stipulated period of one month the candidate will need to apply for an extension for a period of a maximum of six months. Candidates would need to pay pro-rated academic fees for the extension period, till the submission of the final thesis. If the candidate fails to submit the final thesis before the end of the extension period, his/her registration shall be cancelled.
- 9.18 The evaluation of student in the open defence will be based on following parameters:

<b>Criteria</b>	<b>Weightage</b>
Understanding of Research Area	15%
Problems Formulation / Experimental Design/ Mathematical Modelling	15%
Quality of Work Done	20%
Analysis and Interpretation of results	15%
Quality of Thesis Submitted	15%
Presentation	20%

## **10. Research Projects for M.Sc. Programmes**

The evaluation of project courses (type-IV) for M.Sc. Programmes will be done as per Clause 4.6.2 of R.9.

## **11. Cancellation of Registration**

The registration of a student for Masters degree shall be cancelled under the following conditions:

- 11.1 The student remains absent for a continuous period of six months without giving any valid reason.
- 11.2 The student has not paid the fees and has not renewed admission for the subsequent year before the deadlines of the institute.
- 11.3 The student has withdrawn the admission.