

# ACADEMIC PROGRAMMES

## Rules & Regulations

(For Students enrolled from July 2022 onwards)



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**Indian Institute of Technology Jodhpur**

## **1. INTRODUCTION**

Academic programmes at Indian Institute of Technology, Jodhpur are designed to develop the highest calibre human resource capable of understanding the new patterns of knowledge creation across disciplines obliterating traditional boundaries between science, humanities, social sciences and engineering. IIT Jodhpur aims to produce quality professionals who would be able to address profound and wide-ranging societal challenges of the 21st century such as energy, food, water, housing, mobility, and health. In addition to imparting scientific knowledge, IIT Jodhpur endeavours to inculcate human qualities of courage, integrity, fairness, humility and team effort among its graduates through curricular, co-curricular and extra-curricular activities on campus.

The academic programmes focus on developing a temper for the life long process of learning, creative thinking and exploring. The postgraduate academic programmes focus on developing deep understanding of the subject of study coupled with creative inquisitiveness and the ability to address and solve new problems with free and objective mind.

The academic programmes are based on three tenets of (1) semester system, (2) Credit System and (3) Relative Grading. These academic programmes are administered by a duly constituted Academic Committee (AC) through the office of Academics. The AC will be chaired by Dean (Academics). In the absence of Dean (Academics), Associate Dean (Academics- PG)/Associate Dean (Academics- UG) will discharge the responsibilities of Dean (Academics).

The Senate of the Institute has formulated a set of guidelines and rules to ensure high standard of performance as well as for smooth functioning of the academic programmes. Within this broad set of guidelines, subject to the approval of Senate, different programmes can include additional academic requirements as deemed necessary for that programme. These academic programmes are continuously monitored by the Senate and make appropriate modifications/improvements as and when necessary.

## **2. ACADEMIC SESSION**

The academic session normally runs from the end of July in one year to the middle of July in the next year. The academic session is divided into three parts: two regular semesters and a summer term as per the following timelines:

Semester I: From the fourth week of July to the last week of November

Semester II: From the last week of December to the last week of April

Summer Term: From the middle of May to the middle of July.

Excluding the days of the examinations, the total number of days of instruction in a semester is at least 70.

## **2.1 Academic Calendar**

The academic calendar gives the exact dates of all important events during the Academic Session, such as orientation, registration, the commencement of classes, adding and dropping of courses, submission of documents, examinations, submission of grades, project evaluation, declaration of results, mid-semester recess, and vacation. This calendar is approved by the Senate.

## **3. REGISTRATION**

**a. Registration:** Students are required to register for prescribed credits as per the programme, on the dates specified in the Academic Calendar. If the student does not register by the date of registration, she/he can register by paying the fine and register before the date of late registration.

**b. Provisional Registration:** A fresh student joining the Institute, who is awaiting the final results of the qualifying examination, is allowed to register provisionally on submission of a certificate from her/his last Institute stating that she/he has appeared in the final examination of the qualifying degree. The student is required to submit documents of having passed the qualifying examination by the last date given in the Academic Calendar for the registration to be regularized.

**c. Late Registration:** If the student does not register by the date of late registration as mentioned in the Academic Calendar, he/she will be deregistered. The appeal against deregistration may be made to Chairman, Senate through Dean Academics. The Chairman Senate may permit the continuation of registration on payment of an appropriate fine.

**d. Adding and Dropping of Courses:** A student may add or drop course(s) with approval of the Faculty advisor till the last date of registration.

**e. Withdrawing from a Course:** After the last date of add-drop, a student will have the option of withdrawing from a course. The last date of course withdrawal will be typically within four weeks from the beginning of the Semester as specified in the academic calendar. The withdrawn course will be mentioned in the Student’s grade card with a letter grade ‘W’.

**f. Cancellation of Semester Registration:** Absence for a period of four or more weeks during a semester shall result in automatic cancellation of the registration of a student from all the courses in that semester.

**g. Summer course registration:** A department may offer summer courses to enable the students to clear their backlog courses and/or regular credit courses. A course will run during summer provided a faculty member(s) is available for running the course. The course is offered on approval of the Dean/ Associate Dean.

## 4. TEACHING AND EVALUATION

### 4.1 Teaching

#### 4.1.1 Medium of Instruction

The medium of instruction is English.

#### 4.1.2 Course Structure

All courses have associated credits. Credits of a course is based on the number of contact hours for lectures, tutorials, and practicals. A student on successful completion of the course with a passing grade will earn an equivalent number of credits. Based on the required academic maturity level of students for attending a course, a course is assigned a level. A course can consist of independent components which can be completed independently. These components are called fractals. A course is identified by a unique number. Following tables define all parameters related to the course numbering scheme.

**Table 4.1** Course Code Description

| Course Code         | M                        | E | L             | 1                | X                                                            | X | 1                                                          |
|---------------------|--------------------------|---|---------------|------------------|--------------------------------------------------------------|---|------------------------------------------------------------|
| <b>Descriptions</b> | Offering Department/IDRP |   | Course Type   | Level of Courses | Unique Identification Number                                 |   | Indicates Fractal                                          |
| <b>Categories</b>   | See Table 4.2            |   | See Table 4.3 | See Table 4.4    | This code will be given centrally by the office of academics |   | 0: Regular<br>1: Fractal 1<br>2: Fractal 2<br>3: Fractal 3 |

**Note:** Examples of course codes

|                | Course Title                               | L-T-P | Course Code |
|----------------|--------------------------------------------|-------|-------------|
| Regular Course | Engineering Mechanics                      | 2-1-0 | MEL1XX0     |
| Fractal Course | Robotics                                   | 3-0-2 | MEL7XX0     |
|                | Fractal 1: Robot Modelling                 | 1-0-0 | MEL7XX1     |
|                | Fractal 2: Motion Planning and Programming | 1-0-0 | MEL7XX2     |
|                | Fractal 3: Robot Control                   | 1-0-0 | MEL7XX3     |

**Table 4.2** Departmental Code

| S. N.                                        | Type | Department/Platform/Office                       |
|----------------------------------------------|------|--------------------------------------------------|
| Department                                   |      |                                                  |
| 1                                            | ME   | Mechanical Engineering                           |
| 2                                            | CS   | Computer Science and Engineering                 |
| 3                                            | EE   | Electrical Engineering                           |
| 4                                            | CI   | Civil and Infrastructure Engineering             |
| 5                                            | CH   | Chemical Engineering                             |
| 6                                            | BB   | Bioscience and Bioengineering                    |
| 7                                            | MT   | Metallurgical & Materials Engineering            |
| 8                                            | CY   | Chemistry                                        |
| 9                                            | MA   | Mathematics                                      |
| 10                                           | PH   | Physics                                          |
| 11                                           | HS   | Humanities and Social Science                    |
| Interdisciplinary Research Platforms (IDRPs) |      |                                                  |
| 12                                           | DH   | Digital Humanities                               |
| 13                                           | SS   | Space Science and Technology                     |
| 14                                           | IO   | Internet of Things and Applications              |
| 15                                           | RM   | Robotics and Mobility Systems                    |
| 16                                           | QC   | Quantum Information and Computation              |
| 17                                           | SH   | Smart Healthcare                                 |
| Schools                                      |      |                                                  |
| 18                                           | MS   | School of Management & Entrepreneurship          |
| 19                                           | AI   | School of Artificial Intelligence & Data Science |
| 20                                           | SL   | School of Liberal Arts                           |
| Others                                       |      |                                                  |
| 21                                           | OA   | Office of Academics                              |
| 22                                           | OS   | Office of Students                               |

**Table 4.3** Types for Courses

| S. N. | Course Type | Category                                                                                                                                                                                          |
|-------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | L           | Lecture courses (other than lecture hours, these courses can have Tutorial and Practical hours, e.g. L-T-P Structures 3-0-0, 3-1-2, 3-0-2, 2-0-0, etc.)                                           |
| 2     | P           | Practical / Practice based courses (where performance is evaluated primarily on the basis of practice, practical or laboratory work with LTP structures such as 0-0-3, 0-0-4, 1-0-3, 0-1-3, etc.) |
| 3     | D           | Project based courses (e.g. Major, Minor, Mini Projects)                                                                                                                                          |
| 4     | N           | Non-graded core component                                                                                                                                                                         |
| 5     | T           | Thesis                                                                                                                                                                                            |
| 6     | Q           | Seminar Courses                                                                                                                                                                                   |
| 7     | S           | Independent Study                                                                                                                                                                                 |
| 8     | R           | Product Realization                                                                                                                                                                               |
| 9     | E           | Engineering Design (Graded and Non-Graded)                                                                                                                                                        |

**Table 4.4** Level of Courses, category and credit requirements

| S. N. | Level | Category                                                                                                               | Credit Requirements                                                                   |
|-------|-------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1     | 100   | Courses for B.Tech. Programmes                                                                                         | B.Tech. (Cr>=0)                                                                       |
| 2     | 200   |                                                                                                                        |                                                                                       |
| 3     | 300   |                                                                                                                        | B.Tech. (Cr>=38)                                                                      |
| 4     | 400   |                                                                                                                        | B.Tech. (Cr>=75)                                                                      |
| 5     | 500   | <b>Preparatory</b> Courses of M.Sc. and M.Tech. Programmes (NOT open to B.Tech. and B.Tech. + M.Tech. Dual Degree)     | M.Tech. (Cr=0)<br>M. Sc. (Cr=0)                                                       |
| 6     | 600   | Courses for M.Sc. programmes                                                                                           | B.Tech. (Cr>=75)<br>M.Sc. (Cr>=0)<br>M.Tech. (Cr >= 0)                                |
| 7     | 700   | Courses for M.Tech. programmes                                                                                         | B.Tech. (Cr>=85 with CGPA>=6*)<br>M.Sc. (Cr >=30)<br>M.Tech. (Cr>=0)<br>Ph.D. (Cr>=0) |
|       |       | Advanced courses for M.Sc.                                                                                             |                                                                                       |
| 8     | 800   | Advanced courses for M.Tech. and Ph.D. programmes, An 800 level course should have 700 level course as a pre-requisite | M.Tech. (Cr>=14)<br>Ph.D. (Cr>=0)                                                     |

#### 4.1.3 Approval of Courses

The Senate approves each course along with its weight in terms of credits. Only the approved courses may be offered during any semester/summer term.

#### 4.1.4 List of Courses

The list of courses to be offered in a Program is finalized before the beginning of the semester, by the Department hosting that Program.

#### 4.1.5 Categories of Courses

Courses offered can be from one of the following categories:

##### a) Regular course:

A regular course has 14 hours of classroom engagement per credit. A regular course can be under elective or core/compulsory categories.

Elective courses of 100, 200, 300, 400, 500, or 600, level will run if a minimum of 10 students register for the course. A 700 or 800 level elective course can run with a minimum of 5 registered students. A course not running as a regular course may be offered as a self-study course as per the following section.

## **b) Self-study Course**

A self-study course will be from the list of courses approved by the Senate. The main features of a self-study course are as follows:

- A student may be allowed to register for an elective course as a self-study course provided that the course is not running in that semester as a regular course or a student is not on campus during the course with prior approval of the competent authority.
- A student may also be permitted to register for a core or program compulsory course in self-study mode provided he/she has failed in it earlier and the course is not being offered as a regular course during that semester or a student is not on campus during the course with prior approval of the competent authority.
- Students should apply for a self-study course with the appropriate recommendation of a Course Coordinator and DUGC/DRC/interdisciplinary program committee. The final sanction of a self-study course to a student is made by the Dean (Academics).
- Formal classroom engagement may not be there for a self-study course but laboratory, design and computation exercises will be conducted if they form an integral part of the course.
- The Course Coordinator conducts the assessment as per the evaluation norms for the award of letter grade at the end of the semester.
- Not exceeding 10% of the total graded credit can be opted as a self-study course.
- A self-study course will appear with the approved course title on the transcript.

## **c) Independent Study Course**

Independent study enables a student to pursue course credit on an academic topic of interest under the supervision of a faculty member. The term independent does not mean not involving an instructor but independent of regular class engagement. Self-discipline and having a sense of own direction and goals are fundamental requirements of an Independent Study course. A student having CGPA more than or equal to 6.0 can opt for Independent Study courses with the recommendation of the Supervising Professor. The main features of an independent-study course are as follows:

- A student may be permitted to register for a topic of interest as an independent-study course not exceeding 3 credits in self-study mode at most once during the program. Such an independent study course will be counted toward open elective requirements of the program and will appear with the title “Independent Study” on the transcript.

- Students should apply for an independent study course with the appropriate recommendation of a Course Coordinator and DUGC/DRC/interdisciplinary program committee. The final sanction of an independent-study course to a student is made by the Dean (Academics).
- Normally, no formal lectures will be held for an independent study course but laboratory, design and computation exercises will be conducted if they form an integral part of the course.
- The course will be arranged, planned and managed by a supervising professor. The Course Coordinator conducts the assessment as per the evaluation norms for the award of letter grade at the end of the semester.

#### **4.1.6 Conduct of Courses**

Each course is conducted by the instructor with the assistance of the required number of tutors, as needed. The instructor is responsible for conducting the course, evaluating the performance of students, awarding the grades at the end of the semester, and transmitting the grades as per Subsection 5.2.

The student shall have access to his/her answer paper(s) of all the written examinations conducted for a given course, which may be shown to him/her by the instructor(s) concerned. The instructor must keep all evaluation records in his custody at least for the next six months.

A course approved by the senate of IIT Jodhpur can be conducted through either (i) direct contact (ii) synchronized remote contact (iii) guided study mode or combination of these. In direct contact mode, coordinator or instructor will have a face-to-face physical interaction with the students. Synchronized remote contact mode would require the faculty and/or the students to be concurrently connected to the class-room interaction via electronic conferencing involving both audio and video communication. However, there has to be direct interaction between faculty and students for limited hours (typically 25%) of the stipulated contact hours. In guided study mode, a faculty would guide a single or a group of students to take up study of an approved course via self-learning and discussion-oriented contact sessions. This mode can be also adopted for enabling a student to take up study of a new course, not yet approved by the senate, under supervision of a faculty. All formal evaluation components applicable to courses being run through any one of the above-mentioned modes will be conducted under direct physical



supervision of a faculty. All laboratory components of a course requiring use of a specialized facility will be conducted through direct contact.

#### **4.1.7 Teaching Assignments**

The instructors and tutors for all courses to be offered during the semester are allocated by the Head of the Department hosting the Program. When faculty members of other Departments are also required to participate in teaching a particular course, the allocation shall be done in consultation with the Head of that Department.

#### **4.1.8 Auditing of Courses**

A student may audit a course in addition to the prescribed academic load requirement with the permission of Dean (Academics) on the recommendations of the Instructor of the course being audited and the Faculty Advisor. Under this arrangement, the course will be listed in the Grade Card of the student.

#### **4.1.9 Attendance Requirements**

A student should have full attendance in each course. Unless the student takes leave of absence for valid reasons, the student has to attend every lecture, tutorial, or lab session. The attendance records must be made available to the student after every lecture. Even if the student's attendance falls below 75%, the student will be allowed to appear for the exams. Students not meeting the attendance criterion of 75% will be required to score at least C grade to pass a course. These students would be awarded F grade if their marks are lower than the cut-off for C grade in a course.

#### **4.2 Evaluation**

The performance of students in a course is evaluated continuously, using their interaction in the classroom, and performances in examinations, the laboratory work (if any), and term-papers and projects.

The performance of students in a course is evaluated through examinations and on a continuous basis. The Senate will decide from time to time on the system of tests and examinations in each subject in each semester.

- Minor 1, Minor 2 and Major examinations are mandatory components of the evaluation of a regular 14-week long lecture course. The minor examinations shall be of 60 minutes

duration and the major examination of 120 minutes. Fractal courses (less than 3 credits) must have at least one examination.

- The total weightage of the examination component (three examinations for a 14-week long course) shall be between 40% to 60% of the total weightage of evaluation measure.
- Evaluation policy has to be known from the first day of the class.
- The continuous evaluation may include but not limited to interaction in the classroom, quizzes, assignments, tutorials, laboratory work, term papers and projects.

## 5. GRADING SYSTEM

### 5.1 Letter Grades

At the end of the semester, a student is awarded a relative letter grade in each course by the Instructor offering the course considering the performance of the student during the semester with respect to those of the other students registered in the course. It is proposed that ten regular letter grades, namely A\*, A, A-, B, B-, C, C-, D, E and F shall be awarded in each course. Each letter grade is associated with a numerical equivalent on a 10-point scale shown in Table 5.1. In addition, there are four special letter grades, namely, I, S, X and U, which stand for Incomplete, Satisfactory, Thesis Continuation and Unsatisfactory, respectively. The faculty member shall upload grades on the portal as per stipulated time schedule.

**Table 5.1** Letter grade and its equivalent grade points

| S.N. | Letter Grade | Grade Points           | Comment       |
|------|--------------|------------------------|---------------|
| 1    | A*           | 10                     | Exceptional   |
| 2    | A            | 10                     | Outstanding   |
| 3    | A-           | 9                      | Excellent     |
| 4    | B            | 8                      | Very Good     |
| 5    | B-           | 7                      | Good          |
| 6    | C            | 6                      | Average       |
| 7    | C-           | 5                      | Below Average |
| 8    | D            | 4                      | Marginal      |
| 9    | E            | 2                      | Poor          |
| 10   | F            | 0                      | Fail          |
| 11   | I            | Incomplete             |               |
| 12   | S            | Satisfactory in Course |               |
| 13   | X            | Thesis Continuation    |               |
| 14   | U            | Unsatisfactory         |               |
| 15   | W            | Withdrawn              |               |

A detailed description of some of the grades is given below:

| S.N. | Grades | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | A*     | 'A*' grade has the same grade point as 'A' grade. The grade 'A*' indicates exceptional performance and is awarded only in the Course/(s) in which the number of registered students is more than 50. It should not exceed 2 % of the total strength of the particular theory or lab course. The grade 'A*' is not awarded for projects /seminars.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2    | E      | 'E' Grade will be awarded to a student who has scored marks less than the cutoff marks for 'D' Grade and has met the attendance criterion of the institute. Students who obtain an 'E' Grade will be eligible to appear in an additional examination. If they perform satisfactorily, they become eligible for getting the 'E' grade converted to a 'D' Grade, otherwise, they will continue to have 'E' Grade. The student will have only one chance to appear for the additional examination for an 'E' Grade. The additional examination will be conducted within the first week of the next semester. The date of additional examination of Institute core courses for undergraduate students will be centrally notified, while for all other courses, the date would be announced by the respective course coordinators. A student can appear for a maximum of three such additional tests in a given semester. If a student cannot appear for the test due to any reason(s), he/she will not get any additional chance. If a student with 'E' grade in a course does not pass the course through the additional test, or obtains an 'F' grade in the course, he/she has to repeat the course if it is a core course. In case the course is an elective, the student may take the same course again or any other course. 'E' and 'F' Grades are not counted in the calculation of the CGPA; however, these are taken into account in the calculation of the SGPA. |
| 3    | I      | An 'I' grade is temporarily awarded to a student on his/her request to denote incomplete performance in a course on approval of an instructor. An 'I' grade is awarded in case of missing an evaluation component due to absence on medical grounds or other special circumstances. Requests for 'I' grade should be made at the earliest but not later than the last day of major tests. All evaluation requirements for such students in the corresponding course(s) should be completed on or before the last date of add and drop of courses specified in the academic calendar. Upon completion of all course requirements, the 'I' grade is converted to a regular grade.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4    | S      | This grade is awarded to a student with satisfactory performance in non-graded and Audit courses or in a thesis after successful completion of the open seminar. The grades obtained in an audit course are not considered in the calculation of SGPA or CGPA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5    | X      | This grade is awarded to a student in a course for continuation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6    | U      | This grade is awarded to a student with unsatisfactory performance in thesis, audit or non-graded courses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7    | W      | This grade is awarded to a student who has opted to withdraw from a course. Withdrawal from a course is permitted until the date specified in the Academics Calendar.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 5.2 Procedure for declaration of results

The following procedure would be followed for declaration of results and time line would be as per Academic Calendar.

1. Evaluation scheme to be displayed by instructors at the start of a semester
2. Display of answer sheets and all scores by instructors
3. Finalization of grades by Instructors
4. Grade moderation by department/institute level committee for department/institute wide courses

5. Recommendation of grades by the Head of the Department after scrutiny of grades by a department moderation committee
6. Display of grades by Instructors
7. Grade correction, if any, within 48 hours of display of grades after approval of the head of the department
8. Approval of Grade by the Dean (UG/PG)/Associate Dean(UG/PGs)
9. Finalization of results by the Dean (UG/PG)/Associate Dean(UG/PG)
10. Approval of results by the Chairman Senate
11. Results once approved cannot be changed under any circumstance. In exceptional cases, an appeal may be made to the Chairman, Senate for reconsideration, with formal justification.

### **5.3 Grade Point Averages**

#### **5.3.1 Semester Grade Point Average**

The Semester Grade Point Average (SGPA) is a weighted average of the grades earned by a student in all courses credited by her/him and reflects her/his academic performance in the respective semester. If the grade points associated with the letter grades earned by a student in  $N$  courses registered during a semester are  $G_1, G_2, \dots, G_N$ , and the corresponding credits  $C_1, C_2, \dots, C_N$ , then the SGPA is given by the following formula:

$$SGPA = \frac{C_1G_1 + C_2G_2 + \dots + C_NG_N}{C_1 + C_2 + \dots + C_N}$$

The SGPA is calculated on the basis of grades obtained in all courses, except audit courses and courses in which S/X grade is awarded, registered in a particular semester.

#### **5.3.2 Cumulative Grade Point Average**

The Cumulative Grade Point Average (CGPA) indicates the overall academic performance of a student in all the courses registered up to the latest completed semester. The CGPA is computed similarly as the SGPA, considering all the courses in all semesters. The CGPA is calculated on the basis of all pass grades (A\*, A, A-, B, B-, C, C-, D), except audit courses and courses in which S/X grade is awarded, obtained in all completed semesters.

The SGPA and CGPA calculation is based on credits earned/completed at IIT Jodhpur alone.

## **6. GRADE CARD AND TRANSCRIPT**

A Grade Card shall be issued to each student at the end of each semester, and a Transcript at the end of the Programme. IIT Jodhpur Grade Card and Transcript will only indicate the courses, credits and grades completed at IIT Jodhpur and the total number of credits (without grades) earned in other academic institutions in a particular semester, if applicable.

## **7. WAIVER OF REQUIREMENTS IN SPECIAL CASES**

The rules and regulations procedures and requirements stated in this manual, other than those related to Admissions to the academic programmes, may be waived in special circumstances by the AC on the recommendation of the Department with the approval of Chairman, Senate. All such exceptions have to be reported to the Senate.

## **8. MAKE-UP EXAMINATIONS**

A student who has missed minor(s) or the major examination due to genuine reasons like illness etc. may be permitted to write a make-up examination for the missed components. The student should make an application to the Dean (Academics) through the course instructor within ten days from the date of the missed examination, explaining the reasons for their absence. Applications received after this period need not be entertained. The permission to take a make-up examination will be given under exceptional circumstances such as admission to a hospital due to illness. A student needs to produce the necessary document subject to one of the following categories:

- Students residing in the Hostels should produce a Medical Certificate issued by the Medical Officer of the Institute that he/she was admitted in the Hospital during the period of the missed quiz/exam.
- Students residing in the Hostels and taking medical consultation with outside Doctors are required to obtain written permission from the Medical Officer of the Institute Hospital before they proceed for such consultation.
- Students residing in the hostels but taking medical consultation with outside Doctors are required to obtain an endorsement on the certificate of treatment by the Medical Officer of the Institute Hospital.
- A student staying outside the Campus permanently / temporarily must produce a medical certificate from the Registered Medical Practitioner and the same should be duly endorsed by the parent/guardian.

A slot- wise make-up examination for major will be held during the makeup / supplementary week as per Academic Calendar of the subsequent semester for those who are permitted to take the make-up examination. A student who misses this make-up examination will not normally be given another make-up examination. However, in exceptional cases of prolonged illness resulting in the student missing a make-up examination, the Chairman of the Senate, in consultation with the Dean of Academics may permit the student to appear for make-up examination any day before the end of the first week of the next semester. Under no circumstances prorating can be done for the missed examinations or attendance.

## **REGULATIONS FOR PG PROGRAMME**

## 9. POSTGRADUATE PROGRAMMES

The Indian Institute of Technology Jodhpur currently offers the following Postgraduate programmes.

1. Master of Science (M.Sc.)
2. Dual degree: M.Sc.-M.Tech.
3. Master of Technology (M.Tech.)
4. Dual degree: M.Tech.-PhD.
5. Doctor of Philosophy (Ph.D.)

## 10. POSTGRADUATE ADMISSIONS

The process of admission for all the programs offered by the Institute normally is underway during April-May for Semester 1 and during November-December for Semester 2. In addition, the department may process applications for admissions to PhD programs on a continuous basis and admit students as per the existing procedure.

### 10.1 Categories of Admission

A candidate can be admitted in any one of the following categories

- i. Full-time regular
- ii. Full-time sponsored
- iii. Part-time
- iv. External
- v. Part-time (online)
- vi. Part-time (Project sponsored)
- vii. Executive

However, all categories are not applicable for all PG Programs. Further, programmes can be offered in a combination of these modes (like fully sponsored part-time programs).

#### i) Full-time Regular

An in campus student who can register for up to full credit permissible per semester. A student supported by a project of the institute will be considered a full-time regular student.

#### ii) Full-time Sponsored

An in campus student who can register for up to full credit permissible per semester. The candidate is sponsored either by his/her employer or by self. A self-sponsored candidate must have two years of relevant industrial/R&D/academic experience.

#### iii) Part-time

A part-time student is a working professional who, while employed, attends regular classes as per schedule of the Institute. The student must produce an NOC from the employer for pursuing the programme at IIT Jodhpur. The student can register only for a limited number of credits as compared to a full-time regular student.



#### **iv) External**

A student working in an industry/R&D establishment/academic institution which is equipped with the necessary research and library facilities. The employer must relieve the student to stay in the campus to complete the minimum residency requirements.

#### **v) Part-time (online)**

A part-time (online) student is a working professional who, while employed, attends classes in a synchronous audio-visual mode as per the schedule of the Institute including limited contact sessions. The student is expected to register for a limited number of credits per semester. The student will need to spend at least 12 months in the campus before submission of the Ph.D thesis distributed over the entire period of the programme as per the academic requirements. The student must produce a NOC from the employer for pursuing the programme at IIT Jodhpur certifying that the employer will also provide access to resources for proper execution of the research work.

#### **vi) Part-time (Project sponsored)**

A part-time candidate is a project student receiving fellowship at least at the MoE stipulated rate being supported through research projects running in the institute. The student can register only for a limited number of credits as compared to a full-time regular student. The student is expected to receive the fellowship for a minimum of 36 months. The student will be paying fees at the same rate as that of full time GATE Qualified candidates. The Department will process the applications ONLY if such a position is available in the respective M. Tech. program.

#### **vii) Executive (only for M. Tech.)**

A professional who can carry out/complete the programme requirement in

1. An accelerated fashion (minimum in 12 months), OR
2. Accumulates credits as per convenience and petitions a degree in maximum of 6 years.
3. Part-time or full-time mode by attending courses offered in synchronized remote contact mode and limited direct interaction

### **10.2 Eligibility for Admission**

a. The eligibility conditions given below are the absolute minimum. Departments may prescribe any requirements over and above, subject to the approval of the Senate.

a. The number of admissions that can be made to any program shall be decided by the Senate from time to time.

b. Reservation of seats for various reserved categories shall be prescribed by the Board of Governors.

#### **10.2.1 Admission to M. Sc. Program (Regular)**

The admission to the M.Sc. Programs offered by the Institute will be through any one of the following two avenues.

- a) The applicants qualified through the Joint Admission Test for Master (JAM) organized by IITs.
- b) The applicants having a bachelor's degree in any relevant discipline (3 or 4 year program) may be admitted based on written test and/or interview conducted by IIT Jodhpur.

The applicants under the category (b) must have a minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute or a minimum CGPA of 6.0 for GEN/OBC (5.5 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 4.8 for GEN/OBC category 4.4 for SC/ST) on a scale of 8) OR a first class as specified by the university/institute.

### **10.2.2 Admission to M.Sc – M.Tech Dual Degree Program (Regular)**

The admission to the M. Sc.-M.Tech. Dual Degree Programs offered by the Institute will be through any one of the following two avenues.

- a) The applicants qualified through the Joint Admission Test for Master (JAM) organized by IITs.
- b) The applicants having a bachelor's degree in any relevant discipline (3 or 4 year program) may be admitted based on written test and/or interview conducted by IIT Jodhpur.

The applicants under the category (b) must have a minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute or a minimum CGPA of 6.0 for GEN/OBC (5.5 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 4.8 for GEN/OBC category 4.4 for SC/ST) on a scale of 8) OR a first class as specified by the university/institute.

### **10.2.3 Admission to M.Tech Program (Regular)**

- a) The applicant must have bachelor's degree in engineering or science (4 year program) or a master's degree in science, MCA, Pharmacy, Medical Sciences, Agricultural Sciences and Veterinary Sciences or in related field
- b) A minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute or a minimum CGPA of 6.0 for GEN/OBC (5.5 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 4.8 for GEN/OBC category (4.4 for SC/ST) on a scale of 8) or a first class as specified by the university/institute.
- c) The applicant must either have a valid GATE score or exempted from GATE as per MHRD circular or have qualified an equivalent National Examination or have qualified in the written test and/or interview conducted by IIT Jodhpur.

### **10.2.4 Admission to MTech Program (Executive/Part-time/ External/Sponsored)**

- a) The applicant must have bachelor's degree in engineering or science (4 year program) or a master's degree in science, MCA, Pharmacy, Medical Science, Agricultural Science and Veterinary Science or in related fields.
- b) A minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute or a minimum CGPA of 6.0 for GEN/OBC (5.5 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 4.8 for GEN/OBC category (4.4 for SC/ST) on a scale of 8) or a first class as specified by the university/institute.
- c) The applicant must have a minimum of **two** years work experience (after qualifying degree) in industry/R&D laboratories/Academic Institutions at the time of registration to the program. However, the credit accumulation for the program may start immediately after the qualifying degree. Petitioning for the degree can happen only 1 year after registration.
- d) The applicant must qualify written test and/or interview conducted by IIT Jodhpur.

### **10.2.5 Admission to M .Tech. – Ph.D. Dual Degree Program (Regular)**

- a) The applicant must have bachelor's degree in engineering or science (4 year program) or a master's degree in science, MCA, Pharmacy, Medical Science, Agricultural Science and Veterinary Science or in related field
- b) A minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute or a minimum CGPA of 6.0 for GEN/OBC (5.5 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 4.8 for GEN/OBC category 4.4 for SC/ST) on a scale of 8) or a first class as specified by the university/institute.
- c) The applicant must either have a valid GATE score or exempted from GATE as per MHRD circular or have qualified an equivalent National Examination or have qualified in the written test and/or interview conducted by IIT Jodhpur.

### **10.2.6 Admission to Ph.D. Program (Regular)**

- a) Candidates admitted in this category shall not be a registered student in any other academic program in India or abroad, and shall not be a full-time or part-time employee of any organization in India or abroad.
- b) The applicant must have a master's degree in engineering, pharmacy, agricultural science, science, humanities, social sciences, management with at least 60% marks or at least 6.0/10 CPI or CGPA for GEN/GEN-EWS/OBC (55% for SC/ST),  
OR
- c) The applicant must have MBBS with MD/MS, BVSc with MVSc, BDS with MDS, BPTth with MPTh, BOTH with MOTh or equivalent with at least 60% marks or at least 6.0/10 CPI or CGPA for GEN/GEN-EWS/OBC (55% for SC/ST) in bachelor's degree,  
OR
- d) The applicant must have a bachelor's degree of minimum four year duration in engineering or science or medicine or pharmacy or agricultural science or veterinary science or equivalent with at least 70% marks or at least 7.0/10 CPI or CGPA for GEN/OBC (65% for SC/ST).

### **10.2.7 Admission under any special scheme like Quality Improvement Programme (QIP), Defence Personnel**

The procedures and criteria for admission of these candidates can be decided with the approval of Chairman, Senate.

### **10.2.8. Admission of Indian Nationals Residing Abroad (INRA) and Foreign Nationals**

INRA candidates must have been residing abroad continuously for at least one year at the time of applying for admission.

The applications of INRA and foreign nationals may be processed by the departments as and when they are received or according to any schedule convenient to the department. The applications should be scrutinized to make sure that, both in terms of qualifications and attainment they are comparable with the candidates admitted in the general category. Department will conduct VC based interview for ascertaining suitability of the candidate.

The applications of foreign nationals, who are sponsored by the Indian Council of Cultural Relations (ICCR) will be scrutinized by the department concerned to assess their suitability for admission to the programme. The department's recommendation will be sent to the Chairperson, Senate through the Chairperson, AC.

### **10.2.9 Admission to Ph.D. (sponsored/external/part-time)**

- a) Candidates admitted in this category shall not be a registered student in any other academic program in India or abroad.
- b) The applicant must have a master's degree in engineering, pharmacy, agricultural science, science, humanities, social sciences, management with at least 60% marks or at least 6.0/10 CPI or CGPA for GEN/GEN-EWS/OBC (55% for SC/ST),  
OR
- c) The applicant must have MBBS with MD/MS, BVSc with MVSc, BDS with MDS, BPT with MPTh, BOT with MOT or equivalent with at least 60% marks or at least 6.0/10 CPI or CGPA for GEN/GEN-EWS/OBC (55% for SC/ST) in bachelor's degree,  
OR
- d) The applicant must have a bachelor's degree of minimum four year duration in engineering or science or medicine or pharmacy or agricultural science or veterinary science or equivalent with at least 70% marks or at least 7.0/10 CPI or CGPA for GEN/OBC (65% for SC/ST).
- e) The applicant must have a minimum of two years work experience (after qualifying degree) in industry/R&D laboratories/Academic Institutions at the time of registration to the program.
- f) The applicant must qualify written test and/or interview conducted by IIT Jodhpur.

### **10.3 Admission of Non-Degree Students**

A non-degree student is a student who is registered for a degree in a recognized institute or university in India or abroad, and who is officially sponsored by that institute or university to complete part of his/her academic requirements at IIT Jodhpur. For that purpose, the non-degree student may carry out research or take courses for credit or otherwise or may use other academic facilities.

Any candidate can be admitted as a casual student for specific courses provided the candidate satisfies the minimum eligibility criteria specified in Section 10.2. The application must be routed through the office of Dean R&D. A casual student can register up to a maximum of 9 credits in a semester. On successful completion of the course, students will be awarded with a Course Completion Certificate and Grade obtained. A casual student can also accumulate credits to petition for a certificate or a diploma from IIT Jodhpur.

Students so admitted will be governed by all rules, regulations and discipline of the Institute.

### **10.4 Reservation Policy**

The reservation policy of the Government of India will be followed.

## 11. PG REGISTRATION

### 11.1 Limits on Registration

Maximum and minimum number of credits a student can register in different programs:

- M.Sc.: A M.Sc. student can register for a maximum of 24 credits and a minimum of 10 credits in a semester.
- M.Tech.: A M.Tech. student can register for maximum and minimum credits as per Table 11.1.

**Table 11.1** Maximum and Minimum Credits a M.Tech. student can register for during the Regular semester/Summer Term :

|                  | M.Tech. student registered under different categories | Indicative Maximum Credits | Minimum Credits |
|------------------|-------------------------------------------------------|----------------------------|-----------------|
| Regular Semester | Executive (Accelerated)                               | 24                         | 10              |
|                  | Executive (Normal)                                    | 17                         | 10              |
|                  | Executive (Slow-Paced)                                | 12                         | 3               |
|                  | Executive (Part Time)                                 | 12                         | 3               |
|                  | Full-time (Regular/Sponsored)                         | 17                         | 10              |
|                  | External                                              | 20                         | 10              |
|                  | Part-time                                             | 12                         | 3               |
| Summer Term      | Executive (Accelerated)                               | 16                         | 0               |
|                  | Executive (Normal)                                    | 9                          | 0               |
|                  | Executive (Slow-Paced)                                | 6                          | 0               |
|                  | Full-time (Regular)                                   | 9                          | 5               |
|                  | Full-time (Sponsored)                                 | 9                          | 0               |
|                  | External                                              | 9                          | 0               |
|                  | Part-time                                             | 6                          | 0               |

- M.Tech.-Ph.D. dual degree/Direct Ph.D. (Joining after B.Tech.) - The maximum and minimum credits that a M.Tech.-Ph.D. dual degree/direct Ph.D. student can register are equivalent to that of a M.Tech. (Regular/External/Part-time) student.
- Ph.D.: A Ph.D. student can register for maximum and minimum credits as per Table 11.2.

**Table 11.2** Maximum and Minimum Credits a Ph.D. student can register for during the Regular semester

| Ph.D. student registered under different categories | Indicative Maximum Credits (before qualifier) | Indicative Maximum Credits (after qualifier) | Minimum Credits |
|-----------------------------------------------------|-----------------------------------------------|----------------------------------------------|-----------------|
| Full-time Regular                                   | 16                                            | 16                                           | 6               |
| External                                            | 16                                            | 12                                           | 6               |
| Part-Time                                           | 12                                            | 12                                           | 3               |

#### 11.1.1 Registration Kept Alive (RKA)

A student admitted to a M.Tech program who has at least completed minimum credit requirement of the first semester, can keep his studentship alive while he is pursuing any professional activity, by opting for RKA in subsequent semesters. The candidate must indicate his intent of RKA before the last date of late registration through DRC to Dean (academic). The candidate has to pay appropriate registration fees for RKA status.

### **11.2 Change of Registration from M.Tech. (Regular) Programme to M.Tech. (Part-time) Programme**

A full-time regular M.Tech. student may be allowed to change the registration to the part-time M.Tech. programme after successful completion of third semester. A student requesting such a conversion must:

- i) get the request endorsed by the supervisor(s) and the DRC; and
- ii) produce a "No Objection" Certificate from his/her employer for carrying out the research work

### **11.3 Change of Registration from M.Tech. Programme to M.Tech.-Ph.D. dual degree Programme**

A regular student registered for the M.Tech. programme having CGPA 8 or more at the end of second semester may be allowed to switch to M.Tech.-Ph.D. dual degree program till the end of third semester. As a special case, a student can switch to dual degree in the fourth semester with the approval of DRC, provided his/her CGPA is 8 or more, who will then be required to complete his/her candidacy requirements by the end of fifth semester.

All conditions of the M.Tech.-Ph.D. dual degree program will be applicable to all such students. All such changes of registration shall be reported to the Senate.

### **11.3 Change of Registration from Part-Time M.Tech. to Part-Time Ph.D. Program**

A part-time M.Tech. student having CGPA 8 or more after completion of at least 24 credits may be allowed to change his/her registration to the Ph.D. program. The credits earned will be counted towards his/her Ph.D. course work requirements.

### **11.4 Change of Registration from Full-Time to Part-Time/External Ph.D. Programme**

A student admitted to a full-time Ph.D. programme may be permitted to change to a part-time Ph.D. programme. A student requesting such a conversion must:

- i) have successfully completed his/her candidacy requirement;
- ii) get the request endorsed by the supervisor(s) and the DRC;
- iii) produce a "No Objection" Certificate from his/her employer for carrying out the research work.

### **11.5 Maximum Duration of a Program**

- **M.Sc.** - 8 registered semester
- **M.Tech. (Regular and Part-time/External/Executive)** - 12 registered semesters which may include maximum 6 semesters of Registration kept Alive (RKA) after completion of the first semester. Tuition fee post RKA will be the same as that of sponsored candidates.
- **Ph.D. and M.Tech.-Ph.D. dual degree (Regular and Part-time/External)** - 14 registered semesters which may include maximum 6 semesters of Registration kept Alive (RKA) after completion of the two semesters. Tuition fee post RKA will be the same as that of sponsored candidates.
- Students may request for RKA to Dean (Academics) through DRC.

## 11.6 Course Registration

Students will be eligible to register for courses as per the criterion specified in Section 11.1 and Table 4.4.

The DRC/ IRC must oversee that the student has not registered for a similar course during her/his Masters or Bachelors program.

## 12. ACADEMIC REQUIREMENTS

### 12.1 Academic Load & Calculation of Credits for a Course for PG Programmes

The total credits for a course is calculated by taking into account the number of lectures, tutorial, and practical hours (L-T-P) assigned as given in Table 12.1 and 12.2 for M.Sc. and M.Tech. Ph.D. programmes respectively. Each credit is associated with the number of contact hours and the expected number of self-learning hours (on an average) to be spent by the student for each contact hour to meet academic demand of the course.

**Table 12.1** LTP-structure and credit assignment for M.Sc.

| Type                           | L-T-P | Distribution of contact and beyond contact Hours <sup>#</sup> |                            |                  | Total Credits (TC=TH/3) |
|--------------------------------|-------|---------------------------------------------------------------|----------------------------|------------------|-------------------------|
|                                |       | Contact Hours (CH)                                            | Beyond Contact Hours (BCH) | Total Hours (TH) |                         |
| 1 hour of Lecture              | 1-0-0 | 1                                                             | 2                          | 3                | 1                       |
| 1 hour of Tutorial             | 0-1-0 | 1                                                             | 2                          | 3                | 1                       |
| 1 hour of Lab                  | 0-0-1 | 1                                                             | 0.5                        | 1.5              | 0.5                     |
| 1 hour of Project <sup>#</sup> | 0-0-1 | 1                                                             | 2                          | 3                | 1                       |

<sup>#</sup>Contact hour for a project refers to the involvement of students in the laboratory, discussion, etc.

**Table 12.2** LTP-structure and credit assignment for M.Tech./Ph.D.

| Type                           | L-T-P | Distribution of contact and beyond contact Hours <sup>#</sup> |                            |                  | Total Credits (TC=TH/4) |
|--------------------------------|-------|---------------------------------------------------------------|----------------------------|------------------|-------------------------|
|                                |       | Contact Hours (CH)                                            | Beyond Contact Hours (BCH) | Total Hours (TH) |                         |
| 1 hour of Lecture              | 1-0-0 | 1                                                             | 3                          | 4                | 1                       |
| 1 hour of Tutorial             | 0-1-0 | 1                                                             | 3                          | 4                | 1                       |
| 1 hour of Lab                  | 0-0-1 | 1                                                             | 1                          | 2                | 0.5                     |
| 1 hour of Project <sup>#</sup> | 0-0-1 | 1                                                             | 3                          | 4                | 1                       |
| 1 hour of Thesis (Ph.D.)       | 0-0-1 | 1                                                             | 3                          | 4                | 1                       |

<sup>#</sup>Contact hour for a project refers to the involvement of students in the laboratory, discussion, etc.

### 12.2 Course categories for Masters' programmes

- 1) Compulsory Course (MC)
- 2) Programme Compulsory (PC)
- 2) Programme Elective (ME)
- 3) Open Elective (MO/OE)
- 4) Specialization Core (SC)
- 5) Specialization Elective (SE)
- 6) Specialization Stream Electives (SSE)
- 7) Micro Specialization Core (MSC)
- 8) Project works (MP)
- 9) Non-graded (NG)

### 12.3 Academic Credit Requirements for M.Sc. Students

Course categories and academic requirements for M.Sc. students are given below in Table 12.3.

**Table 12.3** Programs/ Credits to be earned for MSc students

| Programs                   | Minimum Credits to be earned |    |    |    |       |
|----------------------------|------------------------------|----|----|----|-------|
|                            | MC                           | ME | MO | MP | Total |
| M.Sc. (Chemistry)          | 38                           | 18 | 06 | 15 | 77    |
| M.Sc. (Mathematics)        | 38                           | 18 | 06 | 15 | 77    |
| M.Sc. (Physics)            | 38                           | 18 | 06 | 15 | 77    |
| M.Sc. (Digital Humanities) | 37                           | 18 | 06 | 15 | 76    |

| Program                              | Minimum Credits to be earned |       |    |    |       |
|--------------------------------------|------------------------------|-------|----|----|-------|
|                                      | PC                           | SE/SC | OE | MP | Total |
| M.Sc. (Computational Social Science) | 37                           | 18    | 6  | 15 | 76    |

### 12.4 Academic Credit Requirements for M.Tech. Students/ Executive M.Tech.

Course categories and academic requirements for M.Tech. students are given below in Table 12.4.

**Table 12.4** Minimum Credits to be earned For MTech students

| Programs                                       | Minimum Credits to be earned |    |    |    |    |       |
|------------------------------------------------|------------------------------|----|----|----|----|-------|
|                                                | MC                           | ME | MO | MP | NG | Total |
| M.Tech (Sensors and Internet of Things)        | 19                           | 17 | 06 | 16 | 4  | 62    |
| M.Tech (Cyber Physical System)                 | 18                           | 18 | 06 | 16 | 4  | 62    |
| M.Tech (Thermofluids Engineering)              | 17                           | 17 | 06 | 16 | 4  | 60    |
| M.Tech (Advanced Manufacturing and Design)     | 19                           | 15 | 06 | 16 | 4  | 60    |
| M.Tech (Materials Engineering)                 | 16                           | 18 | 06 | 16 | 4  | 60    |
| M.Tech (Artificial Intelligence)               | 18                           | 18 | 06 | 16 | 4  | 62    |
| M.Tech (Computer Science and Engineering)      | 18                           | 18 | 06 | 16 | 4  | 62    |
| M.Tech (Bioscience and Bioengineering)         | 18                           | 17 | 06 | 16 | 4  | 61    |
| M.Tech (Data and Computational Sciences)       | 20                           | 15 | 06 | 16 | 4  | 61    |
| M.Tech (Intelligent Communication Systems)     | 20                           | 16 | 6  | 16 | 4  | 60    |
| M.Tech (Augmented Reality and Virtual Reality) | 19                           | 15 | 6  | 16 | 4  | 60    |
| M.Tech (Chemical Engineering)                  | 17                           | 17 | 6  | 16 | 4  | 60    |
| M.Tech (Intelligent VLSI Systems)              | 20                           | 16 | 6  | 16 | 4  | 62    |

| Programs                                                                             | Minimum Credits to be earned |     |    |    |    |    |       |
|--------------------------------------------------------------------------------------|------------------------------|-----|----|----|----|----|-------|
|                                                                                      | PC                           | SSE | ME | MO | MP | NG | Total |
| M.Tech (Infrastructure Engineering with Specialization in Environmental Engineering) | 3                            | 17  | 17 | 3  | 16 | 4  | 60    |
| M.Tech (Civil and Infrastructure Engineering with Major in Energy)                   | 3                            | 17  | 17 | 3  | 16 | 4  | 60    |
| Program                                                                              | Minimum Credits to be earned |     |    |    |    |    |       |
|                                                                                      | MC                           | MSC | ME | MO | MP | NG | Total |
| M.Tech (Robotics and Mobility Systems)                                               | 18                           | 9   | 7  | 6  | 16 | 4  | 60    |

### 12.5 Academic Credit Requirements for M.Sc. - M.Tech. Dual Degree

Minimum credit requirements for M.Sc.-M.Tech. Dual Degree is cumulative sum of credit requirements for respective M.Sc. program and M.Tech. program as mentioned in Sections 12.3 and 12.4.



## 12.6 Academic Credit Requirements for M.Tech. - Ph.D. Dual Degree

Course categories and academic requirements for MTech - PhD dual degree students are given below in Table 12.5.

**Table 12.5** Minimum Credits to be earned for dual degree MTech and PhD students

| Programs                                                      | Minimum Credits to be earned |    |    |    |    |       |
|---------------------------------------------------------------|------------------------------|----|----|----|----|-------|
|                                                               | MC                           | ME | MO | MP | NG | Total |
| M.Tech-Ph.D Dual Degree (Sensors and Internet of Things)      | 19                           | 17 | 03 | 20 | 4  | 63    |
| M.Tech-Ph.D Dual Degree (Cyber Physical System)               | 18                           | 18 | 03 | 20 | 4  | 63    |
| M.Tech-Ph.D Dual Degree (Communication and Signal Processing) | 17                           | 17 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Thermofluids Engineering)            | 17                           | 17 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Materials Engineering)               | 16                           | 18 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Computer Science and Engineering)    | 18                           | 18 | 03 | 20 | 4  | 63    |
| M.Tech-Ph.D Dual Degree (Artificial Intelligence)             | 18                           | 18 | 03 | 20 | 4  | 63    |
| M.Tech-Ph.D Dual Degree (Bioscience and Bioengineering)       | 18                           | 17 | 03 | 20 | 4  | 62    |
| M.Tech-Ph.D Dual Degree (Intelligent Communication Systems)   | 20                           | 16 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Advanced Manufacturing)              | 19                           | 15 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Mechanical Design)                   | 19                           | 15 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Data and Computational Sciences)     | 20                           | 15 | 03 | 20 | 4  | 62    |
| M.Tech-Ph.D Dual Degree (Chemical Engineering)                | 17                           | 17 | 03 | 20 | 4  | 61    |

| Programs                                                                                              | Minimum Credits to be earned |     |    |    |    |    |       |
|-------------------------------------------------------------------------------------------------------|------------------------------|-----|----|----|----|----|-------|
|                                                                                                       | PC                           | SSE | ME | MO | MP | NG | Total |
| M.Tech-Ph.D Dual Degree (Infrastructure Engineering with Specialization in Environmental Engineering) | 3                            | 17  | 17 | 03 | 20 | 4  | 61    |
| M.Tech-Ph.D Dual Degree (Civil and Infrastructure Engineering with Major in Energy)                   | 3                            | 17  | 17 | 03 | 20 | 4  | 61    |

The DRC/IRC must oversee that the student has not registered for a similar course during Bachelors program and take necessary corrective action by suggesting alternative courses.

## 12.7 Academic Credit Requirements for Ph.D. Students

The minimum credits to be earned through courses, is listed in Table 12.6.

**Table 12.6** Credit Requirements for PhD students

| S.No. | Ph.D. in                                         | With                                                                                 | Minimum Credits through Course Work | Minimum Credits through Thesis Work |
|-------|--------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1.    | Engineering discipline                           | M.Tech., M.E. or M.Sc. (Engineering) in an Engineering discipline                    | 12                                  | 48                                  |
|       |                                                  | M.Sc. degree in a Science discipline                                                 | 24                                  | 48                                  |
|       |                                                  | B.Tech., B.E. or B.Sc. (Engineering) in an Engineering discipline                    | 24                                  | 48                                  |
| 2.    | Science, Humanities or Social Science discipline | M.Sc., M.A. and M.Phil. degree in a Science, Humanities or Social Science discipline | 12                                  | 48                                  |

The indicative maximum credits, a student registers in a semester, are notional. *In addition to the above minimum credit requirements through coursework, Ph. D. students are further required to complete four compulsory non-graded (NG) courses before the open seminar. A student already completed a NG course as part of his/her program need not register for the same course again.*

The coursework requirements for IDRPh.D. students will be in line with Table 12.6.

While securing the minimum overall CGPA requirement in 12 (Ph.D. in departmental domains)/ 24 (Ph.D. in IDRPh.D. domains with M.Sc. degree in a Science discipline/direct Ph.D.) earned credits, a course repeat process may be allowed for a maximum of 4 credits for Ph.D. students in departmental domains and 8 credits for Ph.D. students in IDRPh.D. domains with M.Sc. degree in a Science discipline or for students enrolled in direct Ph.D. programme. The student can repeat course(s) within the said credit limit in which he has obtained a pass grade but performance is poor (secured grade is B- or lower). No replacement of course(s) in which the student has secured pass grade and above is allowed. If the student opts to repeat a course, then the grade secured in the next attempt will prevail.

## 12.8 Academic Performance Requirements

### 12.8.1 Minimum performance for continuation and Graduation in a program

The minimum CGPA requirement for continuation and graduation in a program is given below in Table 12.7.

**Table 12.7** Minimum CGPA requirements

| Sr. No. | Program                             | Continuation in Programme (SGPA)   | For graduation                   |
|---------|-------------------------------------|------------------------------------|----------------------------------|
| 1       | M.Sc. (only graduation requirement) | Refer 12.8.2                       | 5.0                              |
| 2       | M.Tech.                             | 5.0                                | 5.0                              |
| 3       | Dual Degree (M.Sc. and M.Tech.)     | 5.0                                | 5.0                              |
| 4       | Dual Degree (M.Tech. and Ph.D.)     | 6.5 (For first semester $\geq 6$ ) | 7.0                              |
| 5       | Ph.D.                               | 6.5 (For first semester $\geq 6$ ) | 7.5 at completion of course work |

### 12.8.2 Degree Grade Point Average (DGPA) for Ph.D. students

A PhD student who has completed the credit requirements for the course work but has a CGPA less than 7.5 (required for graduation) will be evaluated using Degree Grade Point Average (DGPA) where DGPA is defined with respect to the best performance of the student in minimum number of credits.

### 12.8.3 Continuing criteria for M.Sc.

**M.Sc.-** The student must earn at least 20 credits at the end of second semester for continuation in the program.

### 12.8.4 Minimum performance for continuation Assistantship/Fellowship

The minimum CGPA requirement for continuation Assistantship/Fellowship is given in below Table 12.8

**Table 12.8** Minimum CGPA requirements for Continuation of Assistantship/Fellowship

| Sr. No. | Program                         | Continuation of Assistantship/<br>Fellowship |
|---------|---------------------------------|----------------------------------------------|
| 1       | M.Tech.                         | 6.0                                          |
| 2       | Dual Degree (M.Tech. and Ph.D.) | 6.5                                          |
| 3       | Ph.D.                           | 6.5                                          |

## 13. LEAVE RULES

Application for leave of absence should be addressed to the Convener DRC, and submitted with a medical certificate, if applicable. Usually, leave must not be availed of without prior approval of the DRC.

### 13.1 Leave

A maximum of 30 days in an academic year (including leave on medical grounds + mid semester break). The student must apply for leave in advance even during the summer/winter term or mid-semester break.

A PhD student cannot avail leave for more than 15 days at a stretch

An M.Tech./M.Sc. student cannot avail leave for more than 10 days at a stretch

The leave beyond 30 days in an Academic Year may be granted in exceptional cases by DRC without assistantship during that period.

### 13.2 Other Leaves

Maternity leave for Ph.D. students is sanctioned as per the directives of MoE. It will not be counted towards maximum permissible duration of the programme.

Any other leave may also be permissible as per the guidelines of MoE.

### 13.3 Semester Withdrawal

May be applicable in unforeseen circumstances or for medical reasons. Absence for a period of four or more weeks in any semester will result in automatic withdrawal from that semester.

In all such cases, the fellowship will be stopped with immediate effect and it will be continued for only after the student rejoins the institute. DRC can approve and intimate Office of Academics regarding the leave of the student for records. In case, the leave extends beyond a semester, it can only be approved through the Academic Committee. Semester withdrawal on medical ground will not be counted towards maximum permissible duration of the programme for the student.

### 13.4 Academic Leave

Academic leave can be requested for any of the following reasons, such as

1. Field work
2. Library work- because of a specialized collection at a particular library
3. Experimental work/training using specialized facility not available at IITJ
4. Attending conferences/workshops/summer/winter schools/symposium

5. Collaborative work as part of joint M.Tech./Ph.D. supervision
6. Collaborative work for a specific problem related to his ongoing Ph.D programme as indicated in his research proposal
7. Exchange program – as part of an exchange program with sister institution in India or abroad

All such requests must be evaluated and approved by SRC/DRC/IRC before the leave is granted. SRC/DRC/IRC must also make recommendations regarding continuation of fellowship during academic leave.

- A student may be allowed to spend a maximum duration of one year on academic leave.
- A student during academic leave can earn a maximum of 12 credits per semester as certified by SRC and approved by DRC.

## **14. FINANCIAL ASSISTANCE**

Financial assistantship/scholarship will be provided to the eligible students admitted under regular full-time program. The eligibility criteria are as per the following:

### **14.1 M.Sc. Program**

Merit-cum-Means fellowship as per Institute norms.

### **14.2 M.Sc.-M.Tech. Dual-Degree Program**

A student having completed minimum credit requirements of a M.Sc. program at the end of second year with

a. CGPA $\geq$ 8

OR

b. have qualified GATE can have financial support from MHRD or project fund.

### **14.3 M.Tech. Program**

A regular M.Tech. student with GATE can have financial support from MHRD or project fund. A student may be exempted from GATE as per MHRD guidelines.

### **14.4 Executive M Tech Program**

Students admitted in this category will not be provided any financial assistance from the Institute.

### **14.5 M.Tech. – Ph.D. Dual Degree Program**

Rules and regulations governing financial assistance for dual degree students will be at par with regular Ph.D. students.

### **14.6 Ph.D. Program**

A regular Ph.D. student admitted to the Institute will be eligible for financial assistance as per the norms of IIT Jodhpur.

a. A candidate having B.Tech./B.S. (four-year program)/Master's degree with GATE/NET(JRF)/NBHM (or equivalent) can have financial assistance as per MHRD norms.

b. The requirement of GATE is exempted for an applicant with M.Tech. or equivalent post-Bachelor's degree

c. A student may be exempted from GATE as per MHRD guidelines.

A Ph.D. student would be eligible for enhancement in the scholarship after two years provided the student has met the qualifier requirement. Enhanced fellowship will commence from the date of completion of both the conditions. No arrears will be provided due to delay in completing the qualifier requirement. No arrears will be provided due to delay in completing the above requirements.

The Teaching/Research Assistantship of a Ph.D. student will continue till thesis Defense or end of the semester in which he/she has submitted thesis, whichever is earlier. The above is permissible subject to assistantship/fellowship available in the semester under question as per MHRD/CSIR/DST/UGC rule.

## **15. RULES AND REGULATION FOR CONDUCT AND EVALUATION OF M.TECH./M.SC. PROJECT**

- Allotment of students to supervisors will be made based on the preferences of the students and supervisor(s).
- The supervisor and area identification must be completed by the end of the first semester.
- Coordinator, M. Tech. Program would advise until the student is assigned to regular supervisor(s).
- Each semester a letter grade will be awarded after examination by a committee consisting of DRC, supervisor(s) and two members conversant with the field of research with at least one-member external to the department (may be outside the Institute also). DRC will appoint examiners in consultation with the supervisor. Same committee may examine more than one thesis. The external member can be on VC. DRC will ensure that the Award of letter grade would be as per relative grading policy.
- A regular full-time student must register for M.Tech Project Part-1 in the summer semester following 2<sup>nd</sup> semester. He must obtain a satisfactory grade to continue M.Tech project part-1 in the next semester. His performance in the summer semester will be evaluated by his supervisor.

## **16. RULES AND REGULATIONS FOR PH. D. /M. TECH.-PH. D. DUAL DEGREE PROGRAM**

### **16.1 Thesis Supervisor(s)**

#### **16.1.1 Selection of Ph.D. Candidates**

The selection should be based on merit and capability of the candidate to conduct research.

There should at least be a faculty member available or likely to join in the areas of interest of the candidate at the time of selection.

#### **16.1.2 Appointment of Thesis Supervisor(s)**

- Ph. D. students shall be admitted in the department and no supervisor shall be assigned at the time of selection.
- Allotment of students to supervisor(s) will be made based on the preferences of the students and supervisor(s).

- For both Ph. D. and M. Tech. - Ph. D. Dual degree supervisor(s) and area identification must be completed by the end of the first semester.
- The Convener, DRC (Department Research and Postgraduate Committee)/Coordinator, IRC (Interdisciplinary Research Program Committee) would advise until the student is assigned to regular supervisor(s).
- There shall not be more than two supervisors, in general, for a student. Additional supervisor can be allowed with the approval of Chairman, Senate.
- A supervisor from outside the institute, **before qualifier**, may be appointed on the request of student/supervisor(s) with the recommendation of the DRC/IRC and the Dean (Academics) and approval of the Chairman, Senate.
- The external supervisor will be requested to sign Intellectual Property Right (IPR) and Non-Disclosure Agreement (NDA) documents as a part of acceptance. From the financial point of view the Institute will have no obligation to the external supervisor.

### **16.1.3 Caretaker Supervisor/Additional supervisor**

- Whenever the supervisor proceeds on short leave for a period up to one year, the DRC/IRC shall appoint a caretaker supervisor in consultation with the supervisor and the student to take care of the administrative requirements.
- Whenever the supervisor proceeds on long leave for a period more than a year, then an additional supervisor needs to be appointed on the suggestion of the supervisor.
- The supervisor going on lien or sabbatical may continue supervising students and the supervisor can opt for either an additional supervisor or a caretaker supervisor.
- The supervisor on his/her retirement or on resignation may continue as supervisor and will have to opt for an additional supervisor provided the student has cleared the qualifier before supervisor's retirement/resignation.

### **16.1.4 Composition of Departmental Research Committee (DRC)**

The DRC will consist of coordinators of M.Tech, M.Tech.-Ph.D. dual degree and Ph.D. programs of the department, head of the Department and Senior Professor/Associate Professor proposed by the Head. The DRC will be Chaired by a Professor/Associate Professor nominated by the Head of the Department. The Chairman of the DRC will be a member of the Academic Committee. The DRC has to be approved by the Dean (Academics). Ph.D. program coordinator will be the convener of DRC and will be proposed by the head. The tenure for the DRC will be 2 years.

### **16.1.5 Composition of Interdisciplinary Research Committee (IRC)**

The IRC will consist of all coordinators of IDRPs and Senior Professor/Associate Professor as the chairman of the IRC will be nominated by Dean (Academics). The chairman of IRC will be a member of AC. One of the IDRPs co-ordinators would be convener of the committee. The tenure for the IRC will be 2 years. The IRC will be approved by the Dean (Academics).

### **16.2 Change of Research Supervisor**

Change of supervisor(s) under exceptional circumstances shall be permitted by Dean (Academics) on recommendation of the DRC/IRC after obtaining the consent of

(i) the student (ii) the present supervisor(s) and (iii) the proposed supervisor(s).

If required, realignment of student's research program will happen under supervision of the DRC/IRC.

### **16.3 Student Research Committee (SRC)**

#### **16.3.1 Composition of SRC**

- The SRC will normally consist of supervisor(s) and three other faculty members conversant with the field of research with at least one-member external to the department (may be outside the Institute also).
- A Student Research Committee (SRC) for the candidate shall be proposed by the supervisor(s), recommended by the DRC/IRC and approved by the Dean (Academics).
- The SRC shall have one member identified as Chairman for administrative functions and the supervisor(s) will act as convener. Chairman, SRC is to be appointed by Dean (Academics).
- The appointment of SRC should be completed by the end of the first semester.
- Any subsequent changes in the composition of SRC shall be communicated through the DRC/IRC to Dean (Academics) for record.
- The SRC and supervisor(s) shall be the internal examiners for the evaluation of the thesis.
- The SRC is expected to monitor the progress of the candidate until the completion of the program.

#### **16.4 Annual Progress Monitoring Meeting (APM)**

Academic progress of all registered Ph.D. students will be reviewed once in a year by the SRC and peers in the institute. The review will be based upon (i) Annual Progress Report and (ii) A Poster Presentation open to all. SRC will award Satisfactory/Non-Satisfactory grade based upon (i) and (ii). Two consecutive non-satisfactory grades will lead to termination of registration.

For implementational convenience, the academic calendar must indicate two days in a year for conducting annual progress evaluation of research scholars. Following groupings of students and scheduling guidelines are suggested

1. For students joining in 1st semester of AY: APM must be conducted by the Last Working Date of September of every year
2. For students joining in 2nd semester of AY: APM must be conducted by the Last Working Date of February of every year

The first APM will be conducted after successful completion of qualifier requirements. Those students who have got 6 months extension to complete qualifier requirements, for them APM can be scheduled even after a semester from the date of completion of qualifier requirements. Each semester “Satisfactory” progress or “Unsatisfactory” progress will be reported by supervisor(s) through the SRC for record.

Any situation in exception to the above will be processed by the academic committee and approved by Dean (academics)

#### **16.5 Qualifier requirements of Ph.D. Student**

The following four components together will constitute qualifier (candidacy) requirements for a Ph. D. student and for a Ph. D. candidate to be eligible for the enhanced SRF fellowship.

1. Completed course requirements with the minimum CGPA specified in Section 12.8.1
2. Cleared comprehensive examination
3. Successful presentation on state of the art of the chosen field of research

#### 4. Successful presentation and defense of Research proposal

The Ph. D. students are normally expected to complete successfully the Qualifier requirements before the beginning of the fifth semester of his/her registration in the Ph. D. program and in any case not later than the beginning of the sixth semester after their registration in the Ph. D. program. Part-time and direct Ph.D. candidates will need to complete qualifier requirements before the beginning of the seventh semester. M.Tech.-Ph.D. candidates will need to complete qualifier requirements before the beginning of the fifth semester and in any case not later than the beginning of the sixth semester after their registration in the program. For M.Tech.-Ph.D. dual degree students, the 16 credits associated with the M.Tech. project II are to be converted to the RP.

#### 16.5.1 Comprehensive Examination of Ph. D. /M.Tech-Ph.D Student

- The comprehensive examination must be designed to test the general capability of the student and the breadth of his/her knowledge in the discipline and areas related to the field of research.
- The Comprehensive Examination shall be conducted by a Comprehensive Examination Committee of the Department/IDRP.
- The Comprehensive Examination will consist of a written test with three papers.
- Departments will offer at least 5 Papers for conducting the comprehensive examination. Each paper will have broad coverage of one essential sub-area of the department. Course content of these papers will be approved by the academic committee and Senate. The syllabus of papers for the comprehensive examination will not be the same as courses offered by the department; it must be designed to test the breadth of the knowledge in that area.
- The SRC will specify a set of three papers as comprehensive requirements for a particular student. These three papers may be selected from across the departments.
- The comprehensive examination requirements shall be intimated to the Ph.D. student within **two weeks** of SRC formation.
- All comprehensive examinations will be scheduled on two fixed days in a year. It can coincide with the annual progress evaluation day of doctoral candidates. Students may decide to appear for three papers on the same day or on different days.
- A student can appear in the comprehensive examination before he/she has completed the course requirements and satisfied the minimum specified CGPA requirement.
- If the performance of the Ph.D. student in a comprehensive examination paper in the first attempt is not satisfactory, he/she will be given one more opportunity to appear during the next scheduled comprehensive examination as per the academic calendar. For valid medical or unforeseen reasons, if a student is not able to register for the comprehensive examination, the comprehensive examination may be rescheduled within that semester with prior approval to the Dean/Associate Dean (PG- Programs).
- For clearing the comprehensive examination, a student must perform satisfactorily in all papers.



### Comprehensive Examination to be completed by the students:

- Ph.D.: within 3 semesters
- Direct Ph.D. and Part-Time Ph.D.: within 5 semesters

### 16.5.2 State of Art Seminar (SOTA)

Every Ph.D. student is required to give a general seminar in the Department covering the State of Art of the area of research. The presentation must also include patent landscaping of the area. The presentation will be evaluated by the SRC. A candidate must have a satisfactory grade in SOTA awarded by SRC for becoming eligible to present his research proposal. The State of the Art seminar must be completed before finalization of the research proposal. For M.Tech.-Ph.D. students, the presentation in M.Tech. Project I will be considered as SOTA.

### 16.5.3 Research Proposal

Research proposal (report + presentation) will be evaluated by SRC after successful completion of SOTA. The Research proposal must include representative research work equivalent to research work worth 16 credits. SRC will allocate a letter grade based on the performance of the candidate.

### 16.6 Candidacy for the Ph.D. Degree

A student enrolled in the Ph.D. program is formally admitted to the candidacy for the Ph.D. degree after he/she has completed the qualifier requirements for the degree. Only such students who are admitted to the candidacy will be allowed to submit Ph.D. thesis.

The time-lines for comprehensive examination, state of the art seminar and candidacy examination are summarized in Table 12.9 .

**Table 12.9** Timelines for comprehensive examination, state of the art seminar and candidacy examination

| Sr. No.                   | Ph.D. (Regular) | Ph.D. (Part-time) | Ph.D. (Direct) | M.Tech.-Ph.D. |
|---------------------------|-----------------|-------------------|----------------|---------------|
| Comprehensive Examination | 3 Semesters     | 5 Semesters       | 5 Semesters    | 3 Semesters   |
| State-of-the-Art Seminar  | 3 Semesters     | 5 Semesters       | 5 Semesters    | 3 Semesters   |
| Candidacy Examination     | 4 Semesters     | 6 Semesters       | 6 Semesters    | 4 Semesters   |

### 16.7 Relaxation in M.Tech. -Ph.D. dual degree program

- M.Tech.-Ph.D. dual degree students who have successfully completed all qualifier requirements, under exceptional conditions, as approved by SRC after 3 years can also convert into part-time/external Ph.D. students and exit with M.Tech degree if all conditions for part-time/external conversion are satisfied.
- The renewal of their registration for every semester however, will be considered only if SRC finds their progress to be satisfactory and recommends continuance of registration.

## 16.8 Cancellation of Registration

- The registration of a student whose progress is not found to be satisfactory by the SRC or who has not enrolled will be liable for cancellation.
- The registration of a student who has not submitted his/her thesis before the end of the maximum permissible period specified in Section 11.5 will be liable for cancellation.

## 16.9 Synopsis

- Synopsis will consist of an open seminar and a comprehensive internal close door assessment of the research work, through a pre-synopsis report, by SRC.
- The student can submit the synopsis only if the SRC is satisfied about the quality and quantity of the work for submission as a Ph.D. thesis.
- Publications arising out of the thesis are to be submitted along with the pre-synopsis report.
- Students should submit the synopsis and thesis within **six** months of the open seminar date. If required, an extension of **three** months may be permitted by Dean (Academics) on the recommendation of SRC.
- If the synopsis and thesis are not submitted in the specified period, the student will be asked to present the synopsis again.
- On satisfactory completion of the prescribed courses with minimum CGPA specified in 4.6.1, the comprehensive examination, the SOTA, the research work and the synopsis, the student shall submit the requisite copies of the synopsis of his/her research work in the required format through the supervisor(s) and HoD to the Academic Section for consideration of the SRC.
- The student should have at least two publications in Scopus indexed journals and/or A+ conferences for Engineering and Science Departments. Requirements for the Department of Humanities and School of Management & Entrepreneurship will be specified separately.

## 16.10 Thesis submission and Evaluation

The supervisor(s) shall propose a list of 10 examiners consisting of at least four Faculty Members from abroad and 4 Faculty Members from India, who have the expertise in the area in which the student undertook research. For selecting an examiner, following guidelines should be followed

- The examiners shall have at least 6 years Post-Ph.D. experience;
- No two proposed examiners shall be from the same organization; and
- The examiners can be Faculty Members or Scientists, of standing and repute.
- **Chairman, Senate may ask for additional names for examiners.**
- The Chairman, Senate, shall select **minimum** two examiners from the proposed list, of which at least one should be an examiner from outside India. The consent of these examiners shall be taken before sending the Thesis to them. **In addition, the SRC and Supervisor(s) shall be the examiners of the Thesis.**
- The Indian examiners shall attend in person the Thesis Defense.
- The examiners shall submit a written report on the Thesis within a period of two months from the date of receipt of the Thesis.
- If both examiners declare the Thesis as acceptable for award of Ph.D. degree, the Dean (Academics) shall request the Supervisor(s) to hold the Thesis Defense by the student.

- If any of the examiners rejects the Thesis for the award of the Ph.D. degree, the Dean (Academics) shall report the matter to the Chairman, Senate, for further consideration. The Chairman, Senate, will refer the Thesis to a third examiner under special circumstances; else the registration of the student shall stand cancelled in the Ph.D. program.
- If both examiners reject the Thesis for the award of the Ph.D. degree, no degree shall be awarded by the Institute, and the registration of the student shall stand cancelled in the Ph.D. program.
- If an examiner suggests revision of the Thesis, the student shall resubmit the Thesis after the revision within a prescribed time period of **6 months** in **consultation** with the Supervisor(s).
- When both examiners recommend the Thesis as accepted for the student to defend the Thesis, or after the resubmission of the Thesis after incorporating the suggestions/corrections given by the examiners, the student shall publicly present the Thesis and defend the contention of the Thesis.
- The committee consisting of Chairman SRC, Supervisor(s), the Examiner from within India and other Faculty Members, who participated in the Comprehensive Examination of the student, shall evaluate the Thesis Defense of the Ph.D. student also. On their recommendation, Dean (Academics) shall recommend to the Senate, to consider the award of Ph.D. degree to the student.

## 17. GRADUATION REQUIREMENTS

A student is deemed to have completed the requirements for graduation, if she/he has met the requirements laid down in Clauses 17.1 to 17.4 below.

### 17.1 Minimum Residential Requirement

**Table 17.1** Minimum residential requirement

| S.No. | Program                        | Qualifications at the time of joining the Program                 | Minimum Duration (in semesters) of Residence |
|-------|--------------------------------|-------------------------------------------------------------------|----------------------------------------------|
| 1.    | M.Sc.                          | All qualifying degrees                                            | 4                                            |
| 2.    | M.Sc.-M.Tech. Dual Degree      | All qualifying degrees                                            | 7                                            |
| 3.    | M.Tech. Programs               |                                                                   |                                              |
|       | Full-time Regular /Sponsored   | All qualifying degrees                                            | 3                                            |
|       | Part-time/ Part-time Executive | All qualifying degrees                                            | 0                                            |
|       | Executive                      | All qualifying degrees                                            | 1                                            |
| 4.    | Ph. D. Programs                |                                                                   |                                              |
|       | Engineering discipline         | M.Tech., M.E. or M.Sc. (Engineering) in an Engineering discipline | 2                                            |
|       |                                | M.Sc. degree in a Science discipline                              | 5                                            |
|       |                                | B.Tech., B.E. or B.Sc. (Engineering) in an Engineering discipline | 5                                            |

|  |                                                  |                                                                                      |   |
|--|--------------------------------------------------|--------------------------------------------------------------------------------------|---|
|  | Science, Humanities or Social Science discipline | M.Sc., M.A. and M.Phil. degree in a Science, Humanities or Social Science discipline | 2 |
|  | Part-time                                        | All qualifying degrees                                                               | 0 |
|  | External                                         | All qualifying degrees                                                               | 1 |

### **17.2 Academic**

The student shall be declared to have fulfilled the academic requirements if she/he has earned the minimum credits as per Section 12.3 for M. Sc., Section 12.4 for M. Tech., Section 12.5 for M. Sc.-M.Tech. Dual Degree, Section 12.6 for M.Tech-Ph.D. Dual Degree and Section 12.7 for Ph.D., while meeting the minimum CGPA requirements as mentioned in Section 12.8.

### **17.3 No Dues Clearance**

The degree will be awarded after obtaining No Dues Clearance from all concerned sections as deemed necessary by Dean (Academics).

### **17.4 No case of Disciplinary Action**

The student shall not be considered to have completed the Academic Requirements if there is any case of indiscipline pending against her/him.

### **17.5 Award of Degrees**

#### **17.5.1 Provisional Certificate**

A student, who completes all the graduation requirements specified in Clauses 17.1 to 17.4, can be provided a provisional certificate by the office of Dean (Academics) on the approval of Chairman, Senate.

#### **17.5.2 Degree Certificate**

A student, who completes all the graduation requirements specified in Clauses 17.1 to 17.4, is recommended by the Senate to the Board of Governors (BOG) for the award of the appropriate degree in the ensuing convocation. The degree can be awarded only after the BOG accords its approval.

### **17.6 Withdrawal of Degree**

Under extremely exceptional circumstances, where gross violation of the graduation requirements is detected at a later stage, the Senate may recommend to the Board of Governors for withdrawal of a degree already awarded to the student.

## **18. AMENDMENTS**

Notwithstanding anything contained in this document, the Senate of IIT Jodhpur reserves the right to modify/amend, without notice, Rules and Regulations of the Postgraduate programmes at IIT-Jodhpur.