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# **Regulations for M.Sc. Programs**

**Indian Institute of Technology Jodhpur**



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## 1. INTRODUCTION

The aim of the M.Sc. Program is to develop graduates having good knowledge and research training in emerging areas of natural sciences. IIT Jodhpur has organized the Masters of Science Program in domains of three Departments of the Institute. These Programs are:

- (1) M.Sc. (Chemistry),
- (2) M.Sc. (Physics), and
- (3) M.Sc. (Mathematics).

The M.Sc. Program is based on three tenets of (1) *Semester System*, (2) *Credit System*, and (3) *Relative Grading*. This document sets out the procedures and requirements of the said Programs of study at IIT Jodhpur.

## 2. ACADEMIC SESSION

Each academic year (*July to June*) consists of two academic semesters. Each semester is for about sixteen (16) weeks with one week of recess for students, making it about 15 working weeks in each semester. Excluding the days of the examinations, the total number of days of instruction in a semester is at least 70. Normal schedule of these semesters is given in Table 1.

**Table 1:** Schedule of the Academic Session

S.No.	Segment of the Year	Duration
1	Semester 1	Fourth week of July – Last week of November
2	Summer Vacation	First week of December – Third week of December
3	Semester 2	Last week of December – Last week of April
4	Summer Vacation	First week of May – Third week of July

### 2.1 Academic Calendar

It gives the exact dates of all important events during the Academic Session, such as orientation, registration, commencement of classes, adding and dropping of courses, submission of documents, examinations, submission of grades, conversion of Incomplete I-grades, vacation, mid-semester recess. This calendar shall be approved by the *Senate*.

### 3. ADMISSIONS

The admission to the M.Sc. Programs offered by the Institute will be through the Joint Admission Test for Master (JAM) organised by IITs.

#### 3.1 Eligibility for Admission

The eligibility criteria prescribed below in Table 2 are the absolute minimum.

**Table 2:** Minimum Eligibility Criteria for admission to M.Sc. Programs

<b>Program</b>	<b>Qualifying Degree and Marks obtained</b>
M.Sc. (Chemistry)	<p>Bachelor's degree with Chemistry as a subject for three years or six semesters and Mathematics at (10+2) level</p> <p>A first class in the qualifying degree, the First Class is defined as:</p> <p>(i) A minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute, OR</p> <p>(ii) A minimum CGPA of 6.5 for GEN/OBC (6.0 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 5.2 for GEN/OBC category (4.8 for SC/ST) on a scale of 8) OR (iii) A first class as specified by the university/institute.</p>
M.Sc. (Physics)	<p>Bachelor's degree with Physics as a subject for three years or six semesters and Mathematics at (10+2) level</p> <p>A first class in the qualifying degree, the First Class is defined as:</p> <p>(i) A minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute, OR</p> <p>(ii) A minimum CGPA of 6.5 for GEN/OBC (6.0 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 5.2 for GEN/OBC category (4.8 for SC/ST) on a scale of 8) OR (iii) A first class as specified by the university/institute.</p>

M.Sc. (Mathematics)	<p>Bachelor's degree with Mathematics as a subject for three years or six semesters and Mathematics at (10+2) level</p> <p>A first class in the qualifying degree, the First Class is defined as:</p> <p>(i) A minimum of 60% marks for GEN/OBC (55% for SC/ST) category in aggregate or as specified by the university/institute, OR</p> <p>(ii) A minimum CGPA of 6.5 for GEN/OBC (6.0 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 5.2 for GEN/OBC category (4.8 for SC/ST) on a scale of 8) OR (iii) A first class as specified by the university/institute.</p>
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### 3.2 Selection Procedure

Admission will be made based on technical performance at the written examination conducted by JAM and/or interview. The *concerned Departments* may shortlist applicants with a proven academic record based on a cut-off of the JAM score card.

All applicants, who are offered admission, will be informed by the concerned Departments. Candidates whose selection is approved by the Chairman, Senate, will be admitted to the M.Sc. Program at IIT Jodhpur after paying the prescribed fee for the Program.

### 3.3 Supervisor Allocation

Students admitted to the M.Sc. Program, shall be allocated a Supervisor during the second Semester of their program at IIT Jodhpur. The Supervisor identification will be based on the research interest of the student and the availability of a Faculty Member willing to supervise such a work.

### 3.4 Reservation Policy

The norms of reservation for different categories shall be adopted as laid down by the *Ministry of Human Resource Development, Government of India*.

### **3.5 Non-degree Program**

A non-degree student is one, who is registered for a degree in a recognized Institute or a University in India or abroad, and who is officially sponsored by that Institute or University to complete a part of her/his academic program at IIT Jodhpur. For that purpose, the non-degree student may carry out research, take courses for credit or otherwise, and/or may use other academic facilities. An official transcript of work done at the Institute along with grades obtained, if any, would be given to the non-degree student concerned for her/his use as she/he may deem appropriate. But, any credits earned at the Institute, by a non-degree student, cannot be applied for any degree program of IIT Jodhpur at any time thereafter. A person can be admitted as a non-degree student on a duly sponsored application to the *Coordinator (Academics)*, who will recommend admission on the advice of AC to the Chairman, Senate, for approval. A non-degree student may be admitted for a maximum period of one year. The strength of non-degree students in any program should not be more than 25% of the program strength. A non-degree student will be required to pay all applicable fees depending upon the status, program, and nationality. Such students will be governed by all rules, regulations and discipline applicable to regular students of the Institute.

### **3.6 Cancellation of Admission**

Students admitted provisionally or otherwise to any program shall submit copies of their mark sheets, provisional certificates, etc., of the qualifying examination and other documents by the last date specified for the purpose in the Academic Calendar. The Senate reserves the right to cancel the admission of any student, if

- (a) she/he fails to submit the prescribed documents demonstrating her/his minimum academic qualification for admission, by the specified date or to meet other stipulated requirement(s); and
- (b) it is found (at any time later) that the student had provided some false information or suppressed relevant information while seeking admission.

### 3.7 Fulfilment of Admission Requirements

Admission to M.Sc. Programs requires that the applicant be eligible, go through the laid-down admission procedure, and pay the prescribed fees. All admissions to the M.Sc. Programs should be formally approved by the Senate.

#### (a) *Course Work*

M.Sc. students are required to undergo coursework at the Institute, offered either by the Departments with which the M.Sc. student is associated or by any other Department (in case of Electives). The minimum number of post-graduate level courses, which the M.Sc. student should meet to complete the coursework requirement is 10. Normal load per Semester is 5 courses. An M.Sc. student is required to complete a minimum of 60 credits of which 30 credits will be through course work over first two semesters, and 30 credits through Thesis work over the last two semesters.

#### (b) *Thesis Submission*

After completing the coursework, M.Sc. students will be involved in one year of active research towards their M.Sc. Thesis. The Thesis Examination shall be coordinated by the *Supervisor* and at least two other Faculty Members from the Institute nominated by the *Supervisor* and approved by the *Coordinator (Academics)*. The Supervisor will be solely responsible for the grading of her/his M.Sc. student's Thesis to be "acceptable" or "not acceptable", with letter grades S and X respectively.

## 4. COURSEWORK REQUIREMENTS

### 4.1 Academic Load

Each course is given a weightage called *credits*. The number of credits of each course is based on the number of contact hours for lectures, tutorials, and practicals. A typical post-graduate course is of 3-4 credits. Credits will be assigned to the courses based on the following general pattern:

(a) *One credit* for each lecture class of 50 minutes;

(b) *One credit* for each tutorial class of 50 minutes; and

(c) *One credit* for each laboratory or practical class of three hours.

## **4.2 Registration**

Students are required to register each semester for the courses as per the Program, on the dates specified in the Academic Calendar. After the successful completion of the required courses, a M.Sc. student must continue to register in the following semester till she/he submits her/his Thesis.

## **4.3 Registration Procedure**

A list of courses to be offered in the next semester will be announced online by the AC. Students shall pre-register for courses. The registration procedure involves

- (a) Online filling of the registration form with courses proposed to be credited in the semester;
- (b) Payment of fees and clearance of outstanding dues (if any); and
- (c) Signing of the registration roll at the office of the coordinator of the department hosting the M.Sc. Program.

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.

## **4.4 Late Registration**

If for any compelling reason, like illness, a student is unable to register on the day of registration, she/he can register before the late registration date of registration specified in the academic calendar. If a student seeks prior permission to register late on other valid grounds, Chairman, AC, may allow late registration. Beyond the date of late registration, no student will be allowed to register. In special cases, the final decision will rest with the Senate.

## **4.5 Adding and Dropping of Courses**

A student may add or drop course(s) within one week of the beginning of the semester or the last date(s) specified in the Academic Calendar. For this, the student must fill the appropriate form, get it

endorsed by the Instructor of the course being added, and submit the same to the AC. No permission is required to drop a course.

#### 4.6 Cancellation of 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.

#### 4.7 Minimum Credit requirements

An M.Sc. student shall be declared to complete her/his credit requirements if she/he has earned the minimum number of credits as shown below in Table 3.

**Table 3:** Minimum Credit Requirements for M.Sc. Program

Program	Credits to be earned (at least)			
	Compulsory Courses	Elective Course	Thesis	Total
M. Sc. (Chemistry)	27	03	30	60
M. Sc. (Physics)	27	03	30	60
M.Sc. (Mathematics)	27	03	30	60

## 5. TEACHING AND EVALUATION

### 5.1 Teaching

#### (a) *Medium of Instruction*

The medium of instruction of all courses shall be ENGLISH.

#### (b) *Approval of Courses*

Each course along with its weight in terms of credits is approved by the Senate. Only approved courses may be offered during any semester/summer-term.

#### (c) *List of Courses*

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

#### (d) *Conduct of Courses*

Each course shall be conducted by the Faculty Member with the assistance of required Teaching Assistants, as required. The Faculty Member is responsible for conducting the course: teaching in the class, holding the examinations, evaluating the performance of students, awarding the grades at the end of the semester, and

submitting the grades to AC within 72 hours of the completion of the final examination.

*(e) Teaching Assignments*

Prior to each semester, the Head of the department hosting the M.Sc. Program shall request the faculty members for providing a list of courses being floated by faculty members of the department. The Head of department shall hold a meeting of all its faculty members to identify names of faculty members offering the courses of the next semester.

*(f) Auditing of Courses*

A student may audit any number of courses beyond the prescribed minimum number of courses. Students wishing to audit a course shall seek the consent of the Instructor of the course being audited. No grade will be awarded to students auditing a course; the Instructor may require such students to submit all homeworks and term papers during the semester just like the students, who are crediting the course.

## **5.2 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. If a student is absent without any reason, the Instructor would send him a warning by email. If the student's attendance falls below 80% then the Instructor will notify the Academic Section and a letter will be sent to the student's parents. If the student still does not attend the classes regularly, then the Instructor can deregister the student from the course. Once a student is deregistered from a course, that course will not show up in the grade-card of the student.

## **5.3 Evaluation**

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

### (a) Schedule of Examinations

Each course shall have two mid-semester and one end-semester examinations; the mid-semester examinations shall be of 60 minutes duration and the final examination of 180 minutes. The weightages of elements of evaluation in different courses are listed in Table 4.

**Table 4:** Weightages of elements of evaluation in different courses

S.No.	Mid-Semester 1	Mid-Semester 2	End-Semester	Homeworks	Term Projects	Laboratory
1	25	25	50	-	-	-
2	20	20	40	20	-	-
3	20	20	40	10	10	-
4	20	20	40	5	15	
5	20	20	40	-	-	20

### (b) Make-up Examinations

No make-up examinations are admissible for any reason. But, if a student fails to appear in any examination (two mid-semester and one end semester examinations) for a genuine reason (such as illness), she/he may make a request to AC for a make-up examination within two days of the date of the scheduled examination; a certificate shall be furnished from the Medical Officer of the Institute Health Center, when illness being the reason for absence from the examination. In such cases, the marks obtained in the other elements of evaluation shall be prorated for the examination missed. When two examinations are missed in a course, the prorating is done for only one examination; the marks in the other examination shall be taken as zero.

## 5.4 Grading System

### (a) Grades and Grade Points

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. Five regular letter grades, namely A, B, C, D and F shall be awarded in each course for M.Sc. students. Each letter grade is associated with a numerical equivalent on a 10-point scale (called

Grade Point) shown in Table 5. The grades shall be submitted to the AC within 72 hours after the end semester examination.

A student is awarded 'I' grade in a course, when the student fails to appear in the end-semester examination for a genuine reason. The student shall appear for a make-up examination within the first week of the next semester and seek to convert the 'I' grade into one of the regular grades, at least one day before the last date of add drop in the next semester. Any 'I' grade remaining after this date shall be converted automatically into an 'F' grade.

An M.Sc. student securing a D grade in any of the courses will have to either repeat the course (if the course is a compulsory course) or repeat/substitute it with another relevant course (if the course is an elective course).

*(b) Change of Grade Already Awarded*

A letter grade once awarded shall not be changed under any circumstances. Only in exceptional circumstances, the Senate may allow the required change.

**Table 5:** Grades awarded to M.Sc. Students in each Post-Graduate course

S.No.	Letter Grade	Grade Points	Comment
1	A	10	Very Good
2	B	8	Good
3	C	6	Marginal
4	D	4	Poor
5	F	0	Fail
6	I	-	Incomplete
7	S	-	These grades are given for the M.Sc. Thesis work. If a student earns three X grades for M.Sc. Thesis in any three semesters, the M.Sc. Program of the student shall be terminated.
	X	-	
8	W	-	This grade would appear on the Grade Card with an explanatory note that it stands for waiver granted due to courses credited and/or work done at the selected institute elsewhere. All such courses and/or requirements will be deemed to carry zero credits for SGPA/CGPA calculations.

### 5.5 Grade Point Averages

The *Semester Grade Point Average (SGPA)* is a weighted average of the grades earned by a student in all the 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

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

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 in a similar manner as the SGPA, considering all the courses in all semesters.

## 5.6 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 M.Sc. Program.

## 6. TERMINATION

### 6.1 Termination from M.Sc. Program

A student may be terminated from the M.Sc. Program by Senate, if the student

- (a) is absent without authorized leave of absence for a major part of the semester and does not appear in the end-semester examination of the courses in which she/he is registered,
- (b) fails to report and register by the last date of registration without a bona fide reason,
- (c) violates the code of conduct, involves in ragging, etc., as confirmed by a special Institute committee,
- (d) does not earn the prescribed minimum number of credits within a maximum of 2 years from the date of registration, including all leaves of absence.

### 6.2 Appeal against Termination

A student, who is terminated from the M.Sc. Program, can appeal for reconsideration to the Chairman, Senate. In the appeal, the student is expected to give reasons for poor academic performance and/or why the termination should be reconsidered. The Senate shall

take a final decision after considering all the available inputs. But, the Senate will not entertain any further appeal for review, unless substantial additional information is brought to its notice.

## **7. LEAVE**

Application for leave of absence should be addressed to the Chairman, AC, and submitted with a medical certificate, if applicable. Usually, leave must not be availed of without prior approval of the AC. Applications for all kinds of leave must be submitted well in advance of the date of commencement of the leave requested. Student's absence from the Institute without sanctioned leave will entail loss of financial assistantship for the period of absence and in extreme circumstances may also result in the termination from the respective M.Sc. Program.

### **7.1 Short Leave**

M.Sc. students are entitled for vacation leave up to a maximum of 15 days per Semester in addition to Public Holidays. Vacation leave not availed in a Semester will be carried over to the next Semester up to a maximum of 15 days. Leave of absence during the semester shall be discouraged for all registered students. For bona fide reasons, the student may also be allowed casual leave for up to 5 days per semester.

M.Sc. students may be granted medical leave, duly supported by a medical certificate, up to a maximum of 15 days per year. Such leave shall not entail any loss of financial assistantship. Special Leave to attend Seminars and Conferences in India or abroad to present research papers, with the recommendation of Supervisor(s), is admissible.

### **7.2 Temporary Withdrawal / Semester Leave**

Normally, a student is not allowed to withdraw from the M.Sc. Program temporarily and is expected to complete the program without a break. But, for genuine reasons and/or in exceptional circumstances, a student may be allowed to withdraw temporarily on leave of absence at the discretion of AC and/or Senate for an extended period. Such leave of absence(s) shall ordinarily not exceed one semester with or without break during the entire period of the M.Sc. Program. Absence

for a period of four or more weeks in any semester will result in automatic withdrawal from all courses in that semester.

A student who remains on authorized leave of absence due to ill health, is required to submit on return a certificate from a Registered Medical Practitioner to the effect that she/he is sufficiently cured and is fit to resume her/his studies. The student will be allowed to register only when AC is fully satisfied of her/his state of health.

### **7.3 Permission to Proceed to other Institutions**

To help students to broaden their horizons and gain course/work experience, she/he may be permitted to proceed to other academic institutes in India or abroad as a non-degree student. The following guidelines and procedures apply for this purpose:

- (1) *Eligibility:* A student may be allowed to spend up to one semester and/or one summer terms in any academic institute/university/industry of repute in India with prior permission of AC, if the student has:
  - (i) Completed the minimum course work requirement at IIT Jodhpur; and
  - (ii) No 'F' grade in any course.
- (2) *Procedure:* The student shall make an application to AC through the Supervisor and Head of the Department hosting the program, giving details of the proposed visit, and shall submit a statement of purpose with sufficient information about the institute/university/industry where she/he has chosen to spend time as a non-degree student. The AC will examine the student's request. On the recommendation of the AC, the Senate may approve the proposal and grant permission, with leave of absence, to the student to proceed as a non-degree student to the selected institute /university/industry.

## **8. REQUIREMENTS FOR GRADUATION**

A student is deemed to have completed the requirements for graduation, if she/he has met the requirements laid down in Clauses 8.1 to 8.4.

### **8.1 Minimum Duration of Residence**

The minimum duration of residence shall be 2 years from the date of registration, excluding the periods of leaves of absence, from the date of registration. Under no circumstances should students be permitted to spend more than 5 *semesters* to complete the course work and **8 semesters** for the total programme, including the Thesis work, from the date of registration to the programme.

### **8.2 Academic**

An M.Sc. student is said to have completed the course work requirements, if she/he satisfies the criteria laid down in Sections 4, 5.3, and 5.4. The student shall be declared to have fulfilled the academic requirements if she/he has earned the minimum credits as per Table 4. Further, the student should have earned at least a C Grade in the minimum number of courses to be completed by her/him. In case a student earns a D grade in any of the compulsory course, she/he has to repeat the course.

### **8.3 Payment of Fees and Dues**

The student shall pay all admissible fee and dues, and seek a *No DUE CERTIFICATE* from the Institute, on completion of the Academic Requirements.

### **8.4 No case of Disciplinary Action**

The student shall not have any case of indiscipline pending against her/him.

### **8.5 Award of Degrees**

A student, who completes all the graduation requirements specified in Clauses 8.1 to 8.4, 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.

## **8.6 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 withdrawal of a degree already awarded to the student.

## **9. AMENDMENTS**

Notwithstanding anything contained in this document, the *Senate* of IIT Jodhpur reserves the right to modify/amend without notice, the curricula, procedures, requirements, and rules pertaining to its M.Sc. Programs.

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**Regulations for M.Sc. Programs**

**2015**