

# National Institute of Electronics and Information Technology(NIELIT)

**A Deemed to be University**  
UGC Approved University Under Distinct Category  
Main Campus: BadaPhull, Ropar (Roopnagar)- Punjab 140001

## REGULATIONS

FOR

## MASTER OF SCIENCE (MSc) PROGRAMME

(Effective from the Session: 2024-2025)

APPROVED BY

The Executive Council in its meeting held on

-----

### \*\*\* Campuses \*\*\*

**North**  
Gorakhpur  
Patna  
Ropar  
Srinagar

**North-East**  
Agartala  
Aizawl  
Imphal  
Itanagar  
Kohima

**West**  
Ajmer  
Aurangabad

**South**  
Calicut

# REGULATIONS

## 1. Short Title and Commencement

These regulations shall be called as “The Regulations for the Master of Science (M. Sc.) Degree Program of the NIELIT (A Deemed to be University)”, effective from the Academic Year 2024-25. The regulations framed are subject to modifications from time to time by NIELIT (A Deemed to be University).

## 2. Definitions

In the following, unless the context otherwise requires,

- i. “Academic Programme” shall mean a programme of courses or any other component leading to a Master of Technology degree, as approved by the Board of Management from time to time.
- ii. “Academic Year” shall mean a period of nearly twelve months devoted to completion of requirements specified in the scheme of courses and the related examinations.
- iii. “Candidate” shall mean an individual who applies for admission to any Masters in Science programme of the University.
- iv. “BoM” shall mean the Board of Management of the University.
- v. “BoS” shall mean the Board of Studies of the concerned Department.
- vi. “Branch” shall mean the branch of knowledge studied by a student.
- vii. “CBCS” shall mean the Choice Based Credit System.
- viii. “CCC” shall mean Course Co-ordination Committee.
- ix. “CGPA” shall mean the Cumulative Grade Point Average.
- x. “CoE” shall mean the Controller of Examinations of the University.
- xi. “Course” shall mean a curriculum component of the academic programme identified by a designated code number, a title and specific credits assigned to it.
- xii. “Degree” shall mean the Master of Technology degree.
- xiii. “Department” shall mean Department established in the University for running the academic and research activities in a specified discipline.
- xiv. “Discipline” shall mean the branch of knowledge studied by a student.
- xv. “DPGC” shall mean the Department Post Graduate Committee.
- xvi. “ESE” shall mean the final regular End-Semester Examination.
- xvii. “EWS” shall mean the Economically Weaker Sections of the society.

xviii. “Examiner” shall mean the instructor teaching a specified course who has been nominated as examiner.

xix. “HoD” shall mean the Head of Department.

xx. “MSE” shall mean the Mid-Semester Examination.

xxi. “Paper Setter” shall mean the faculty member responsible for setting a question paper.

xxii. “PD” shall mean differently abled persons as specified by the Government of India from time to time.

xxiii. “PIO” shall mean Person of Indian Origin.

xxiv. “Registration” shall mean registration for a specific course or semester, at the start of the semester, of any programme of the University.

xxv. “SC/ST” shall mean the Scheduled Castes/Scheduled Tribes as notified by the Government of India/Government of NCT of Delhi, as applicable from time to time.

xxvi. “Semester system” shall mean a programme wherein each academic year is apportioned into two semesters.

xxvii. “SGPA” shall mean the Semester Grade Point Average.

xxviii. “Student” shall mean a student registered for a post graduate programme for full-time study leading to the Master of Technology Degree.

xxix. “University” shall mean the NIELIT Deemed to be University.

**Note:** “He”, “Him” and “His” implies “he / she”, “Him / Her” and “his / her”, respectively. Words and expressions used but not defined in these Regulations and defined in the Act and Statutes, shall have the meanings respectively as assigned to them in the Act and Statutes.

### **3. Minimum qualification for admission**

#### **(i) For Computer Science Discipline**

3(i)a. The following students are eligible to apply for the Program: (i) Students who have completed their undergraduate studies (in social sciences – including commerce & management, sciences, mathematics, statistics and engineering) on their first attempt; (ii) Students who are appearing for their final year exams of undergraduate studies (in social sciences, commerce & management, sciences, mathematics, statistics and engineering) are also eligible. For the above courses, students should have a minimum of 50% marks (45% for SC/ST & PWD).

3(i)b. The candidates should have studied mathematics at plus two levels.

OR

3(i)c. NIELIT ‘A’ Level with graduation. The students should have a minimum of 50% marks (45% for SC/ST & PWD) in graduation and have studied mathematics at plus two level.

**(ii) For Electronics Discipline**

The following students are eligible to apply for the Program: (i) Graduation in Electrical Engg. /Electronics Engg./Sciences or allied subjects with 50% marks (45% for SC/ST & PWD).

**(iii) Duration of the program**

The course of study for M. Sc. Science shall extend over a period of four semesters (two academic years) for students. The curricula and syllabi for the program shall be prescribed from time to time by NIELIT (A Deemed to be University).

**(iv) Medium of instruction and examinations**

Medium of instruction and examination shall be in English.

**(v) Working days in each semester**

Each semester shall consist of 80-90 working days. The odd semesters shall be conducted from the month of June/ July to November/ December and the even semesters shall be conducted from December/ January to May/ June in every calendar year.

**(vi) Attendance and Detention**

Students of the programme are expected to attend every lecture, tutorial and practical class scheduled for them.

The students must have a minimum attendance of 75% of the total number of classes including lectures, tutorials and practicals, held in a subject till MSE/ESE in order to be eligible to appear in the MSE/ESE for that subject.

The Dean Academics may allow relaxation in the minimum requirement of attendance up-to 10% for reasons to be recorded. This relaxation may be granted on the production of documents showing that the student was either busy in any authorized activities or was absent due to medical/other genuine reasons. The student should submit these documents to the HoD, within seven days of resuming the studies. Certificates submitted later will not be considered. Under exceptional circumstances, the Dean Academics may further relax the minimum attendance up to 5% on recommendation of a committee comprising of Dean Student Welfare, Dean of Faculty and HoD of the respective department.

Relaxation in attendance maybe granted for a maximum of 2 times during the duration of the programme.

A student shall not be permitted to appear in the MSE/ESE if his/her attendance till MSE/ESE is

below 60 % after relaxation.

Students who are not allowed to appear in the ESE due to shortage of attendance shall be awarded “FD” grade. Such students shall have to register again for that course in subsequent years / summer semester to pass the course.

A student can register again for a different elective course in subsequent years /summer semester and pass the elective course.

The attendance shall be counted from the date of start of academic session. For first year students, attendance shall be counted from the date of the start of academic session or the actual date of admission, whichever is later.

**(vii)Program/Course credit structure**

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, practical classes, project report, internship etc. are measured in terms of credits. On satisfactory completion of the courses, a candidate earns credits. The amount of credit associated with a course is dependent upon the number of hours of instruction per week in that course. Similarly, the credit associated with any of the other academic, co/extra-curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week.

**Course Category Wise Credit Distribution:**

<b>Category</b>	<b>Credits</b>
Program Core	44
Core Labs	12
Electives	12
Electives Labs	0
Audit Course	0
Open Electives	0
Project / Dissertation	14
Total Credit	82

#### **4. Selection Process for Admission**

- i. Only the Candidates meeting the minimum eligibility criteria will be eligible for admission.
- ii. The eligible candidates have to register online.
- iii. The application fees will be as applicable.
- iv. The seats will be filled on merit list generated on the basis of percentage of marks obtained in graduation.
- v. Admission of the Selected Candidates will be subject to their verification of Documents and payment of applicable fees.
- vi. The category-wise Main List (selected) and Waiting List of the candidates for admission to (year 2024-25) to MSc. Programme will be displayed on the website and Notice Board of the University only.
- vii. The selected main and waiting list candidates are required to register on the day as notified along with the list of documents asked.
- viii. Payment should be made according to the mentioned date failing which their admission to the university course will be treated as null and void.
- ix. The candidates are required to produce all the originals certificates and fee at the time of counseling. No relaxation in time will be given for arranging the money or for bringing the original certificates from another place.
- x. Admission process of the MSc. Course will be treated as completed when the approved intake of candidates as per Seat Matrix are provisionally admitted and registered or a time limit decided by the competent authority is over, whichever is earlier.

#### **5. Category Wise Reservation**

- a) Seats are reserved as per Govt. of India Rules, AICTE and/or University Approval.
- b) A quota of 15% is reserved for the SC candidates, 7.5% for ST candidates, 27% for Other Backward Classes, 3% for PWD candidates and 10% for Economic Weaker Section (EWS).
- c) Number of seats reserved are tentative and subjected to be change by Government orders given time to time

#### **6. Age Criteria:**

There is no minimum age requirement

#### **7. Program/Course Credit Structure**

##### **7A. Credits and Grade System**

- a. All programmes shall have credits associated with them as per their Lecture/Tutorial/Practical (LTP) structure and shall be determined as follows:
  - i. One lecture hour per week per semester shall be assigned one credit.
  - ii. One practical hour per week shall be assigned half credit.

However, the credits associated with every programmes will be a whole number, i.e., wherever the sum comes out to be in half credit on calculation following the aforesaid process, the half shall

be rounded to the next whole number.

b. The letter grades based upon the overall mark so obtained in a subject will be as follows:

S.No.	Marks	Letter Grade	Grade Point
1.	$\geq 90$	A+	10
2.	80-89	A	9
3.	70-79	B+	8
4.	60-69	B	7
6.	40-49	C	5
7.	35-39	D	4
9.	$< 30$	F	0

'F' Grade will be treated as Carry Over Paper.

In addition to the above grades, there shall be two more letter grades 'I' and 'AB' which shall stand for Incomplete and Absent Grades, respectively.

c. Semester Grade Point Average (SGPA)

The SGPA is a weighted average of the grade points earned by a student in all the papers credited and described his/her academic performance in a semester. If the grade points associated with the letter grades awarded to a student are  $g_1, g_2, g_3, g_k, \text{etc.}$  and the corresponding credits are  $c_1, c_2, c_3, c_k,$  the SGPA is given by:

$$SGPA = \frac{c_1 g_1 + c_2 g_2 + c_3 g_3 + \dots + c_k g_k}{c_1 + c_2 + c_3 + \dots + c_k}$$

Where  $k$  is the number of papers for which the candidate remains registered during the semester.

d. Cumulative Grade Point Average (CGPA)

The Cumulative Grade Point Average (CGPA) indicates the overall academic performance of a student in all the papers registered in that particular academic year. It is computed in the same manner as the SGPA, considering all the papers (say,  $n$ ), and is given by:

$$CGPA = \frac{\sum_{i=1}^n c_i g_i}{\sum_{i=1}^n c_i}$$

e. Final CGPA

It is the weighted average of the CGPA of all years of study.

f. Percentage equivalence of CGPA/ Final CGPA

The conversion of CGPA / Final CGPA to exact percentage of marks does not have perfect rationale. However, its equivalent at best can be arrived at by multiplying by 10.00.

### **8. Academic work**

A regular record of attendance both in Theory and Practical shall be maintained by the teaching staff of respective courses.

### **9. Course of study**

The course of study for M.Sc. Science shall include Semester-wise Theory & Sessional. The number of hours to be devoted to each theory, tutorial and practical course in any semester shall not be less than 40 sessions.

### **10. Examinations/Assessments**

#### **10 A. Internal / Sessional Examination**

- a. The minimum Grade required to pass in each Theory & Practical paper is 'GRADE D'.
- b. A candidate, in order to pass must satisfy the requirement of Minimum 'GRADE D' in a particular academic year inclusive of both semesters of that academic year subject to conditions of clause 10D.
- c. In case of audit/qualifying paper the minimum Grade required to pass is Grade D. However, the Grade obtained in audit paper shall not be included in SGPA.

#### **10 B. End-Semester Examination**

There will be two End Semester Examinations in all theory and project subjects viz.

Odd (I, III) Semester Examination and

Even (II, IV) Semester Examination in an academic year.

#### **10 C. Carry Forward of Marks**

In case, if a student gets the back in a course/paper, the sessional marks of the subject concerned will be carried forward in the total of marks when he re-appears for the examination of the course in which he has got the back.

#### **10 D. Heads of Passing**

- a) The minimum passing marks in each theory subject (including Internal/ Sessional marks) will be 35%.
- b) The minimum passing marks in each comprehensive viva/project will be 50 %.



c) A student , in order to pass must satisfy the following:

- Minimum 45% marks in aggregate of a particular academic year inclusive of both semesters of that academic year subject to the conditions of the clause 7B.

#### **10 E. Carry Over System**

Maximum number of carry over papers (Theory/ Viva/ Project) permissible for promotion to next year will be 04.

#### **10 F. Promotion**

- (a) A candidate satisfying all the requirements under clause 10A shall be promoted to the next academic year of study.
- (b) A candidate shall be eligible for provisional promotion with carryover paper (PCP) status to the next academic year of study provided he/she fails to satisfy the requirements of clause 10A(a) in not more than permissible carry over paper as mentioned in clause 10D.
- (c) If a candidate satisfies the requirement of clause 10A (a) but fails to satisfy the requirement of 10A (b) he/she shall be eligible for provisional promotion with carryover paper [PCP-A (aggregate)] status. He/she may choose up to a maximum of any 04 theory papers of that particular academic year as per his/her choice to pass the examination of that.

#### **10 G. Ex-studentship**

A candidate opting for ex-studentship shall be required to appear in all theory/practical/viva papers in the end semester examinations of both semesters/ annual examination of the same academic year. However, the sessional marks of theory & practical both shall remain the same as those secured earlier. The maximum duration of course completion is four years.

### **11. Evaluation of Performance**

#### **a. Programmes**

Evaluation of performance of the students in a programme shall be a continuous process based on their performance in the class test, quizzes, assignments and the end semester examinations.

Theory papers in semester system (Maximum Marks: 100)

The evaluation will be done through two class test and one end semester examination. This will be in addition to quizzes, assignments, attendance, etc. Each class test will carry a weightage of 10 marks, and the end semester examination will carry a weightage of 70 marks. The remaining 10 marks will be awarded on the basis of attendance and performance in quizzes and assignments.

**b. Summer Training, Project Report, Seminar etc.**

Summer Training, Project Report, Seminar, and other learning oriented activities shall have associated maximum marks and credits, as stated in the syllabus.

<i>Evaluation Scheme</i>			
<i>Exam</i>	<i>Internal</i>	<i>External</i>	<i>Total</i>
<i>Theory</i>	30	70	100
<i>Practical</i>	30	70	100
<i>Research Project Report Evaluation and Viva-Voce</i>	60	140	200

**Question paper pattern for End-semester Examinations**

I. Long Answers (Answer 1 out of 2) = 5 x 14 = 70

**Total Marks = 70**

**Question paper pattern for Internal/ Sessional Examinations**

Long Answers (Answer 2 out of 3) = 2 x 5 = 10 (each mid-sem)

**Total Marks = 20**

**12. Award of Division**

- The division shall be awarded on the basis of final year result.
- A student who qualifies for the award of the degree securing 'D' or above grades' in all the subjects in his / her first attempt in six consecutive semesters and secures a CGPA of 8.00 or above shall be awarded FIRST DIVISION WITH DISTINCTION.
- A student who qualifies for the award of the degree by securing 'D' or above grades' in all the subjects in the stipulated maximum duration for the BCA programme and secures a CGPA not less than 6.50 shall be awarded FIRST DIVISION.
- All other students who qualify for the award of degree by securing 'D or above grades' in all subjects in the stipulated maximum duration for the BCA programme and secures a CGPA between 5.0 and 6.49 shall be awarded SECOND DIVISION.
- All other students who qualify for the award of degree by securing 'D or above grades' in all subjects in the stipulated maximum duration for the BCA programme and secures a CGPA less than 5.0 shall be awarded THIRD DIVISION.

**13. Scrutiny and Re-evaluation**

- Scrutiny shall be allowed in only theory papers, in which Re-totaling of the marks awarded will be done and only unchecked answers (if any) will be evaluated.
- Re-evaluation of theory/ practical papers is not permitted.

**14. Unfair Means**

Cases of unfair means shall be dealt as per the rules of the University.

**15. Result**

- a. The result of a candidate shall be declared on the basis of the performance of both semesters of the same academic year.
- b. Result of the final year shall be declared on the basis of working out Final CGPA which is the weighted average of CGPA of all years of the study.

**16. Improvement**

There shall be no provision of Improvement examination in all the courses running in the University.

**17. Grade Card**

- a. A copy of the Grade Card shall be issued to each student at the end of each academic year. The duplicate copy, if required can be obtained on payment of prescribed fee.
- b. The Grade Report Card of a student may be withheld if he/ she has not paid his/ her dues or if there is a case of indiscipline pending against him/ her or for any other such reasons.

**18. Re-Admission**

A candidate may be allowed for re-admission provided he/she satisfies one of the following conditions:

- a. A candidate is declared fail.
- b. A candidate promoted with carryover papers and opts for re-admission.