



# tirpude

**INSTITUTE OF MANAGEMENT EDUCATION**

(An Autonomous Institute affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)  
1, Balasaheb Tirpude Marg, Civil Lines, Sadar, Nagpur

## **Academic Regulation No. 05 of 2025**

### **REGULATION GOVERNING RULES FOR ADMISSIONS AND EXAMINATIONS LEADING TO THE AWARD OF DEGREE OF BACHELOR OF SCIENCE (DATA SCIENCE) AS PER THE GUIDELINES PROVIDED UNDER NATIONAL EDUCATION POLICY 2020**

Whereas, Tirpude Institute of Management Education, Nagpur, formerly known as Department of Management Studies and Research, Tirpude College of Social Work which came into existence vide Maharashtra Government Approval Letter No. NGC/ 3594/MBA/7459/MaShi dated 11 May 1994.

And

Whereas, Tirpude Institute of Management Education, Nagpur has been conferred Autonomy by The University Grants Commission through its letter number F.2-1/2023(AC-Policy) dated 9<sup>th</sup> September 2024.

And

Whereas, on having granted the Autonomous status, the duly constituted Board of Studies in Data Science has prepared and approved a Teaching and Examination Scheme for B.Sc. Data Science program in its meeting held on 26<sup>th</sup> November 2024 & 18<sup>th</sup> June 2025 and recommended for consideration and approval to the Academic Council of the Institute.

And

Whereas, the duly constituted Academic Council of the Institute approved the Teaching and Examination scheme for B.Sc. Data Science Program along with Draft Academic Regulations governing provisions for admissions, teaching, examinations and other relevant matters and recommended to the Governing Body of the Institute for consideration and approval in its meeting held on 8<sup>th</sup> November 2025.

And

Whereas, the duly constituted Governing Body of the Institute considered and approved the Academic Regulations recommended by the Academic Council in its meeting held on 20<sup>th</sup> November 2025.

And

Whereas, it has become necessary to issue the academic regulation for rules governing admissions and examination and other relevant matters leading to the award of degree of Bachelor of Science (Data Science), these Academic Regulations are issued and shall be effective from the date of its issuance.

1. This regulation shall be called "RULES GOVERNING ADMISSIONS AND EXAMINATIONS LEADING TO THE AWARD OF DEGREE OF BACHELOR OF SCIENCE (DATA SCIENCE), REGULATION, 2024"
2. This Regulation shall come into force from the date of its issuance and shall be applicable to all the students admitted to first year in academic session 2024-25 in B.Sc. (Data Science) program.
3. In this Regulation unless the context requires otherwise: -
  - a. "Academic Council" means academic council constituted by the institute as per provisions of UGC Regulations, 2023 and responsible to scrutinize and approve the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc. for the conduct of all the programs in the college.

- b. "Board of Studies" means the Board of Studies constituted by the institute as per provisions of UGC Regulations, 2023 and responsible for drafting syllabus and question paper pattern of various courses required for different UG and PG programmes.
- c. "Student" means a student admitted to the B.Sc. Data Science program under this Regulation.
- d. "Program" means the Bachelor of Science (Data Science) program under this Regulation.
- e. "Course" means a theory, practical (or the combination of theory and practical) subject, and research project, prescribed for any trimester and carrying maximum and minimum passing marks, which a student, admitted to the Bachelor of Science (Data Science) program, governed by this Regulation, must study to become eligible for the award of the Degree under this Regulation.
- f. "Credit" means the unit by which the course work is measured. It is measured as 15 hours of teaching per credit for each theory course and 30 hours of teaching for each practical course.
- g. "Grade Point" is the weight allotted to each grade letter depending on the marks awarded in a course/paper.
- h. "Grade Letter" is an index to indicate the performance of a student in a particular course/ paper. It is the transformation of actual marks secured by a student in a course/paper. It is indicated by a Grade letter O,A,B,C,D,E and F. There is a range of marks for each Grade.
- i. "Credit Point" (CP) is the value obtained by multiplying the Grade Point by the Credit i.e. No. of Credits assigned for the course x Grade Points secured for that course.
- j. "Semester Grade Point Average (SGPA)" indicates the performance of a student in a given trimester. It is based on the total credit points earned by the student in all the courses and the total number of credits assigned to the courses/papers in a Semester.
- k. "Cumulative Grade Point Average (CGPA)" CGPA refers to the Cumulative Grade Point Average weighted across all the Semesters. It is obtained by dividing total number of credit points in all the Semesters by the total number of credits in all the Semesters.
- l. "Degree" means the degree of Bachelor of Business Administration.
- m. "MOOCs" means the Massive Online Open Courses offered on SWAYAM, NPTEL, Department of Life Long Learning of RTMNU or any other such portals like Udemy, Edex, CourseEra etc. provided that the course completion certificate issued by all such platforms clearly mentions number of instructional hours required to complete the course and number of credits for the course.
- n. "ATKT" means "Allowed To Keep Term" in the higher semester, as per the rules herein.
- o. "University" means parent or affiliating university- Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

#### 4. Duration of the program

Sr. No.	Certificate /Degree	Min. Duration
1	Certificate in Data Science	1 Year
2	Diploma in Data Science	2 Years
3	Bachelor of Science (Data Science)	3 Years*

*\*Maximum duration for completing the B.Sc. (Data Science) Degree Program shall be 7 years from the year of admission to the first year of program.*

The B.Sc. (Data Science) program spans three years, divided into six semesters consisting of Semester-I and II in first year and Semester-III and IV in second year and Semester-V and VI in third year

Each Semester shall have minimum 90 days of teaching before the commencement of any End Semester Examination of B.Sc. (Data Science)

**5. Programme Code: BSTBDS**

**6. Mode of Conduct:** Regular Full Time

**7. Eligibility for Admission in B.Sc. (Data Science) First Year**

For the B.Sc. (Data Science) 1st semester admission, the examinee shall have Passed the HSC or equivalent from any State Board or any other Board recognized by UGC with English at Higher or Lower level with any three Science subjects comprised in the Faculty of Science with Mathematics or an examination recognised as equivalent there to in such subjects and with such standards of attainments as may be prescribed.

**8. Re-entry or Lateral Entry:**

- a. Students, opting for exit at any level, will have the option to re-enter the programme from where they have left off, in the institution within three years of exit and complete the degree programme within the stipulated maximum period of SEVEN years from the date of admission to first year.
- b. Re-entry at various levels for lateral entrants in the B.Sc. (Data Science) program shall be based on the earned and valid credits as deposited and accumulated in the Academic Bank of Credits (ABC) through the institute.
- c. Lateral entry into the programme of study leading to the UG Diploma / Three Year UG Degree/ Four Year Bachelor's Degree with Honours/Research will be based on the validation of prior learning outcomes achieved and subject to availability seats based on intake capacity.

**9. Program Outcomes (POs):**

	<b>Graduate Attribute</b>	<b>Outcome</b>
PO 1	Problem Solving Ability	The graduate will be able to <b>Apply</b> foundational concepts of mathematics, statistics, and programming to solve data-driven problems.
PO 2	Analytical and Critical Thinking Skills	The graduate will be able to <b>Analyze</b> datasets using statistical, analytical, and machine learning methods to derive meaningful insights and <b>Design</b> and <b>create</b> clear, impactful data visualizations and dashboards for decision-making
PO 3	Designing and Value Creation	The graduate will be able to <b>identify/develop</b> data driven business opportunities/ideas, design analytical solutions, and <b>apply</b> innovative technologies sustainable and scalable growth.
PO 4	Effective Communication	The graduate will <b>exhibit</b> effective communication of information, ideas, arguments and/or reports orally, written and through digital mode to diverse stakeholders
PO 5	Cooperation and Teamwork	The graduate will <b>develop</b> interpersonal and collaborative skills to work effectively in diverse teams, contributing to shared goals and respecting cultural and individual differences
PO 6	Ethics and Social Responsibility	The graduate will be able to <b>demonstrate</b> ethical values, integrity, and commitment to sustainable and socially responsible practices
PO 7	Lifelong learning and Adaptability	The graduate will <b>demonstrate</b> a commitment to continuous learning and upskilling, adapting to new technologies and evolving industry demands.
PO 8	Community Wellbeing	The graduate will <b>demonstrate</b> understanding of social, cultural, and community issues and contribute to community

		development through responsible citizenship, ethical behavior, and participative engagement for inclusive and sustainable growth
--	--	--

### 10. Teaching and Examination Scheme for B.Sc. (Data Science) Program:

The teaching and examination scheme for students admitted to the B.Sc. (Data Science) Program shall be as follows:

#### B.Sc. (Data Science) Semester I

Sr. No	Course Type	Course Name	Course Code	Max Mark ESE		Max Marks CA	Total Marks	Minimum Passing Marks	Credits
				Theory	Practical				
1	Core	Linear Algebra	MT/LA/001	60	-	40	100	40	3
2	Core	Programming with 'C++'	IT/PC/001	60	-	40	100	40	2
3	Core	Programming with 'C++'-Lab	IT/PC/001A	-	50	-	50	25	1
4	OE	Statistics for Competitive Examinations	SS/SC/001	60	-	40	100	40	2
5	OE	Computer Fundamentals	IT/CF/001	60	-	40	100	40	2
6	VSC	Office Automation	IT/OA/001	60	-	40	100	40	2
7	SEC	Public Speaking	LG/PS/001	-	60	40	100	50	2
8	AEC	Foundations of English	LG/FE/001	60	-	40	100	40	4
9	VEC	Environmental Science	BS/ES/001	60	-	40	100	40	2
10	IKS	Vedic Mathematics	MT/VM/001	60	-	40	100	40	2
11	CC	Co-curricular Course		-	-	100	100	40	2
<b>Total</b>				480	110	460	1050	435	<b>24</b>

#### B.Sc. (Data Science) Semester II

Sr. No	Course Type	Course Name	Course Code	Max Mark ESE		Max Marks CA	Total Marks	Minimum Passing Marks	Credits
				Theory	Practical				
1	Core	Programming using Python	IT/PP/001	60	-	40	100	40	2
2	Core	Programming using Python-Lab	IT/PP/001A	-	50	-	50	25	1
3	Core	Principles of Data Science	DS/PD/001	60	-	40	100	40	2
4	Core	Database Management System	IT/DB/001	60	-	40	100	40	2
5	Core	Operating Systems/Management Fundamentals	IT/OS/001 or BS/MF/001	60	-	40	100	40	2
6	OE	Tally Accounting	IT/TA/001	60	-	40	100	40	3
7	AEC	Comprehensive Communication B	LG/CC/002 B	60	-	40	100	40	2
8	SEC	Emotional Intelligence/Professional Etiquette and Workplace Skills/Event Management	PS/EI/001 BS/PW/001 BS/EM/001	60	-	40	100	40	2
9	VSC	Data Management using Excel	IT/EX/001A	-	100	-	100	50	3
10	CC	Co-curricular Course		-	-	100	100	40	1
<b>Total</b>				420	150	380	950	395	17

A student can exit the program after successful completion of 1st and 2nd semesters having earned requisite number of credits as mentioned in the scheme of examination and additional 4 credits from the list of courses

mentioned in NSQF/ Centre of Life-Long Learning (RTMNU) /Internship/MOOCs. Such a student shall be eligible for the award of 'Certificate in Science (Data Science) by the University.

OR

A student can continue the program in 2nd year.

### B.Sc. (Data Science) Semester III

Sr. No	Course Type	Course Name	Course Code	Max Mark ESE		Max Marks CA	Total Marks	Minimum Passing Marks	Credits
				Theory	Practical				
1	Core	JAVA Programming	IT/JP/002	60	-	40	100	40	2
2	Core	JAVA Programming - Lab	IT/JP/002A	-	50	-	50	25	1
3	Core	Quantitative Methods for Business	SS/QM/001A	60	-	40	100	40	3
4	Core	Elementary Business Research	BS/BR/001	60	-	40	100	40	2
5	Core	Data Mining/Computer Networking/Software Project Management	IT/DM/001 or IT/CN/001 or IT/SP/001	60	-	40	100	40	2
6	OE	Management Information System/Search Engine Optimization/Introduction to Stock Market/MOOCs	IT/MI/001 or DS/SE/002 or FA/SM/001	60	-	40	100	40	2
7	VSC	Advanced Excel	IT/EX/002	-	100	-	100	50	2
8	AEC	Internet of Things/ Start-up and New Venture Management	IT/IO/002 or BS/SU/001	60	-	40	100	40	2
9	SEC	Digital Image Processing /Graphic Designing/ Animation	DS/IP/001 or IT/GD/001 or IT/AN/001	60	-	40	100	40	2
10	CC	Co-curricular Course		-	-	100	100	40	2
Total				420	150	380	950	395	20

### B.Sc. (Data Science) Semester IV

Sr. No	Course Type	Course Name	Course Code	Max Mark ESE		Max Marks CA	Total Marks	Minimum Passing Marks	Credits
				Theory	Practical				
1	Major	Statistics and Data Modelling	SS/SDM/002	60	-	40	100	40	3
2	Major	Aptitude Development	BS/AD/001	60	-	40	100	40	2
3	Major	Machine Learning	DS/ML/002A	60	-	40	100	40	3
4	Major	Big Data	IT/BD/001	60	-	40	100	40	2
5	Major	Soft Computing	IT/SC/001	60	-	40	100	40	2
6	OE	Ethical Hacking/Auditing/ Mental Well-being/Basics of Economics/MOOCs	IT/EH/001 or FA/AU/001 or PS/MW/001 or EC/BE/0021	60	-	40	100	40	2
7	SEC	Web Programming Lab/Software Testing	IT/WP/001 or IT/ST/001	-	100	-	100	50	2
8	AEC	Data Ethics/Quality Assurance Management	DS/DE/001 or DS/QA/001	60	-	40	100	40	2
9	SEC	Business News Analysis /Digital Marketing	BS/NA/001 or BS/DM/001	60	-	40	100	40	2
10	CC	Co-curricular Course		-	-	100	100	40	2
Total				480	100	420	1000	410	22

A student can exit the program after successful completion of 1st, 2nd, 3rd and 4th semesters having earned requisite number of credits as mentioned in the scheme of examination and additional '4 credits from the

list of courses mentioned in NSQF/ Centre of Life-Long Learning (RTMNU) /Internship/MOOCs. Such a student shall be eligible for the award of 'Diploma in Data Science by the University.

OR

A student can continue the program in 3rd year.

### B.Sc. (Data Science) Semester V

The specialisation chosen by the student (AI & Prompt Engineering/ Cybersecurity) at the commencement of 3<sup>rd</sup> year, shall be considered as his/her Major for the award of Bachelor Degree.

Sr. No	Course Type	Course Name	Course Code	Max Mark ESE		Max Marks CA	Total Marks	Minimum Passing Marks	Credits
				Theory	Practical				
1	Major	Web Development using React	IT/WR/003	60	-	40	100	40	2
2	Major	Web Development using React Lab	IT/WR/003A	-	50	-	50	25	1
3	Major	Data Visualization	DS/DV/002	60	-	40	100	40	2
4	Major	Deep Learning	DS/DL/003	60	-	40	100	40	2
5	Major	Deep Learning Lab	DS/DL/003A	-	50	-	50	25	1
6	Major	Summer Internship		-	100	-	100	50	4
7	DSE	Specialization Course 1		60	-	40	100	40	2
8	DSE	Specialization Course 2		60	-	40	100	40	2
9	Minor	Introduction to FinTech/ Basics of Macroeconomics	FA/FT/001 or EC/BM/001	60	-	40	100	40	2
10	Minor	Cloud Computing/Real-time data Analytics/ Autocad Tutorials	IT/CC/001 or DS/RTD/001/ IT/AT/001	60	-	40	100	40	2
11	VSC	Blockchain Technologies/ Logo Design/Stress Management	IT/BT/001 or IT/LD/001 or PS/SM/001	60	-	40	100	40	2
<b>Total</b>				480	200	320	1000	420	22

List of DSE for Sem V		
Elective	Course Name	Course Code
DSE 1 (AI & Prompt Engineering)	Evolution of Artificial Intelligence	DS/AI/003
DSE 2 (AI & Prompt Engineering)	Generative AI	DS/GA/003
DSE 1 (Cyber Security)	Evolution of Cybersecurity	IT/CC/002
DSE 2 (Cyber Security)	Network Security	IT/NS/002

### B.Sc. (Data Science) Semester VI

Sr. No.	Course Type	Course Name	Course Code	Max Mark ESE		Max Marks CA	Total Marks	Minimum Passing Marks	Credits
				Theory	Practical				
1	Major	MERN full Stack Development	DS/MD/003	60	-	40	100	40	2
2	Major	MERN full Stack Development- Lab	DS/MD/003 A	-	50	-	50	25	1
3	Major	Digital Marketing Analytics	DS/DA/003	60	-	40	100	40	2
4	Major	Project Phase I + Project Phase II		-	50 + 50	-	100	50	2 + 2
5	Major	Reinforcement Learning	DS/RL/003	60	-	40	100	40	3
6	Minor	Deployment	DS/DP/003	60	-	40	100	40	2
7	DSE	Specialization Course 3		60	-	40	100	40	2
8	DSE	Specialization Course 4		60	-	40	100	40	2
	Minor	Cloud Security and Data Privacy/Excel using AI	IT/CSD/002 or IT/EX/003	60	-	40	100	40	2

<b>Total</b>	420	150	280	850	335	20
--------------	-----	-----	-----	-----	-----	----

<b>List of DSE for Sem VI</b>		
<b>Elective</b>	<b>Course Name</b>	<b>Course Code</b>
DSE 3 (AI & Prompt Engineering)	Prompt Engineering	IT/CC/002
DSE 4 (AI & Prompt Engineering)	Natural Language Processing (NLP)	IT/NS/002
DSE 3 (Cyber Security)	Cyber Threat Intelligence	DS/TI/003
DSE 4 (Cyber Security)	Cybersecurity and Risk Management	IT/CR/002

A student after successful completion of 1st, 2nd, 3rd, 4th, 5th and 6th semesters having earned the requisite number of credits as mentioned in the scheme of examination, shall be eligible for the award of 'Bachelor of Science (Data Science) degree by the University.

### 11. Types of Courses

Courses include:

- a. Core / Major Courses – A Core / Major Course is a compulsory course that provides essential knowledge, skills and conceptual frameworks.
- b. Minor Courses – A Minor Course is a course that is designed to complement the Major Course
- c. Ability Enhancement Courses (AEC) – These courses are compulsory foundational courses designed to enhance student competencies crucial for academic success and employability.
- d. Open Elective (OE) – These are the courses that a student can select from any Discipline apart from the existing Discipline, based on his/her interest.
- e. Value Added Courses (VAC) – These are the courses designed to integrate ethical, moral, humanistic values and foster empathy and social responsibility.
- f. Skill Enhancement Courses (SEC) – These are the courses that a student has to select in order to develop hands on competencies, vocational abilities and applied knowledge.
- g. Discipline-Specific Electives (DSE) – These are the courses offered within the Major Discipline that allows learners to select from a given basket of specialised courses in order to develop their core knowledge and prepare them for research and industry.
- h. Vocation Skill Courses (VSC) - These are the courses designed to provide hands on training and industry- relevant skills to the students at various stages of education, with the goal of making them employable, entrepreneurial and self-reliant.

### 12. Assessment and Evaluation

- In order to become eligible for the End Semester Examination (ESE) of any of the semesters, the student must have secured minimum 75% attendance in the said semester.
- The End Semester written/ practical examination of all the courses shall be conducted by the institute.
- Assessment of a student's performance shall be held as per the evaluation methods specified in the respective course descriptor having a bifurcation of Continuous Assessment (CA) and End Semester Examination (ESE).
- The mechanism for Continuous Assessment will be at the sole discretion of the course faculty who will have to design and conduct assessment of the course using various means like MCQ test, written assignment, class test, presentations, role play, case analysis, field visit or any method deemed fit for the assessment of the course. The details of such assessment and evaluation shall be clearly mentioned in the course descriptor of the said course.
- Marks for Continuous Assessment, awarded on the basis of MCQ test, class tests, assignment etc. as prescribed above by the faculty in the respective course and moderated by the Principal/Dean shall

be notified to the students at least 5 days before the commencement of the End Semester Examination.

- Unless contradictory to the provisions of this academic regulation, all provisions related to conduct of examination and evaluation of students shall be effected as mentioned in a separate regulation titled 'Regulation Governing Norms and Procedures related to examination and evaluation' issued by the competent authority.

### 13. Eligibility for Award of Certificate/Diploma/Degree:

Semester Completion	No. of Minimum Credits Required	Additional Credit Requirement	Eligible For
I and II	44	4 credits for NSQF Course/ Course approved by Centre of Life-Long Learning, /Internship/MOOCs	Certificate in Data Science OR Continue with the 2 <sup>nd</sup> Year
III and IV	44 + 42	4 credits for NSQF Course/ Course approved by Centre of Life-Long Learning, RTMNU/Internship/MOOCs	Diploma in Data Science OR Continue with 3 <sup>rd</sup> Year
V and VI	44 + 42 + 42	Not Required	Bachelor of Science (Data Science)

### Eligibility for Award of Degree and Nomenclature of the Degree:

- A student who earns minimum 128 credits in not less than three years becomes eligible for the award of 'Bachelor of Science (Data Science)' Degree.
- The degree certificate shall have the mention of 'Major' subject opted by the student during the program.

### 14. Standard of Passing

The scope of the course, percentage of passing in End Semester Examination, Continuous Assessment, Internships, Research Project, shall be governed as per following rules:

- In order to pass the Bachelor of Science (Data Science) 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> Semester Examinations, an examinee shall obtain not less than 40% marks in each theory course taking CA and ESE together and not less than 50% marks in practical course.
- An examinee who is unsuccessful in any examination shall be eligible for the same at subsequent examination by payment of a fresh fee prescribed for such examinations.

### 15. Provision for Transfer of Credits

The B.Sc. (Data Science) program offered under this direction provides enhanced academic flexibility to students in terms of selecting the courses they want to learn. A student can opt for any course from any statutory/recognized University or a MOOC from SWAYAM/NPTEL, UDEMY, EDEX, COURSERA or Department of LifeLong Learning, RTMNU or any other institutes affiliated to Department of LifeLong

Learning, RTMNU or any other online platform in lieu of a course other than Major/ Core courses, Discipline Specific Elective courses, Summer Internship, Project, Field Project and Capstone Project, provided that the course completion certificate issued by such platforms clearly mentions number of instructional hours and credits for the course.

The mechanism for transfer of credits earned through these courses to be adhered as mentioned below:

1. Every student shall mandatorily require to create an ID on Academic Bank of Credits (ABC) and shall submit her/his ID to the institute.
2. A student cannot opt out of any course/ courses mentioned as Major/ Core courses, Discipline Specific Elective courses, Summer Internship, Research Project.
3. If a student is willing to opt out of any course, other than Major/ Core courses, Discipline Specific Elective courses, Summer Internship, Research Project, he/she shall have to mention this while submitting the examination form to the institute for respective semester.
4. A certificate of completion of such MOOC course shall be submitted by the student to the Examination Committee/ Controller of Examination before the evaluation of end semester examination commences.
5. Such a certificate shall mandatorily have the number of credits; duration of the course and grades/marks obtained by the student and shall preferably have a QR code for verification.
6. If a student has opted for a MOOC course in a particular semester and failed to submit the certificate within prescribed time, the student shall be marked as 'Absent' for that particular course. Such a student shall be required to fill in the examination form in the consecutive attempt and submit the passing certificate in order to get his/her corrected result.
7. **Normalization of Marks:** There is a possibility that the composition of marks for ODL/ONLINE course may deviate from the composition of marks under this scheme of examination. In such a case the total marks (Proctored Examination + Assignments) obtained by a student in ODL/ONLINE course shall be proportionately converted by taking a basis of total maximum marks prescribed in this Scheme of Examination and such normalized marks be split (Theory, Practical and CIE) in the proportion as prescribed under this scheme of examination.

**Normalization Formula:**

*Proportionate Marks*

$$= \frac{\text{Marks obtained in Online/ODL course}}{\text{Max. Marks of Online/ ODL course}} \times \text{Max. Marks under this Scheme}$$

**Example:**

Case	Marks under this Scheme of Examination				Marks under ODL/Online Scheme			Marks Obtained by Student		
	Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Max. Marks Proctored Examination (SEE)	Max. Marks Assignments (CIE)	Total Marks	Proctored Examination	Assignment	Total
A	60	--	40	100	75	25	100	46	20	66*
B	--	50	50	100	75	25	100	46	20	66*
C	--	--	100	100	75	25	100	46	20	66*

\*while converting, marks will be rounded off to the next integer if fraction is  $\geq 0.5$

**Normalization of Total Marks:**

$$\text{Proportionate Marks} = \frac{46+20}{100} \times 100$$

= 66 Marks

### Distribution of normalized marks as prescribed by this Scheme of Examination

Case	Total Normalized Marks	Composition of Marks prescribed as per this Scheme of Examination				Proportionate Distribution of Marks as per this Scheme of Examination			
		Max. Marks SEE (TH) *	Max. Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Marks Obtained SEE (TH) *	Marks Obtained SEE (PR)	Marks Obtained (CIE)	Total Marks Obtained
A	66	60	--	40	100	40	--	26	66
B	66	--	50	50	100	--	33	33	66
C	66	--	--	100	100	--	--	66	66

8. If a student has opted for an ODL/Online course in a particular semester and failed to obtain minimum passing marks as per this scheme of examination, the student shall be declared 'Failed' in that particular course. Such a student will be required to fill in the examination form in the consecutive attempt and submit the passing certificate in order to get his/her corrected result.
9. If a student has opted for an ODL/Online course in a particular semester and failed to submit the course completion certificate within prescribed time for whatsoever reason, then the result of a student for that semester shall be 'WITHELD' until he/she submits the course completion certificate with marks/grades to the university through college.

#### 16. Promotion to higher semesters (ATKT)

The unsuccessful candidate of any semester examination shall be ALLOWED TO KEEP THE TERM (ATKT) in accordance with the following table: (Theory, Practical and Continuous Evaluation of a course shall be jointly considered as single passing head).

Sr. No.	Semester	Eligibility for admission and appearing End Session Examination
1	Semester I	Candidates should have passed the qualifying examination (HSC or Equivalent) as per the relevant Direction governing the programme.
2	Semester II	As above
3	Semester III	Candidate should have passed all courses of Semester I and 50% of semester 2 courses rounded up to next complete number (Minimum 4 courses of semester 2)
4	Semester IV	A Candidate should have passed all courses of Semester I and semester II and filled examination form of semester III and appeared in the examination.
5	Semester V	Candidate should have passed in all courses of Semester I to Semester III and 50% of Semester IV.

6	Semester VI	Candidate should have passed in all courses of Semester I to Semester IV
---	-------------	--

**Note:** A candidate admitted to Final Semester (6th semester) for 3-year B.Sc. (Data Science) programme can appear for Final Semester examination however the result of the Final Semester examination will be withheld (NCL – Not Cleared lower semester examinations) unless the candidate clears all the lower examinations of the B.Sc. (Data Science) Programme.

### 17. Absorption Scheme:

Students admitted to the B.Sc. (Data Science) program under previous directions shall be allowed to take admission in the current regulations only if the annual credits earned previously by the candidate are equal to or more than the current annual credit requirement laid down by the institute under the current regulations.

#### A. Absorption of students to 2<sup>nd</sup> year (3<sup>rd</sup> Semester) of B.Sc. (Data Science) under this regulation:

- a. Students who have passed 1<sup>st</sup> year (1<sup>st</sup> and 2<sup>nd</sup> Semester) of B.Sc. (Data Science) program under previous B.Sc. (Data Science) (OB-CBCS) direction will be allowed for admission to 2<sup>nd</sup> year (3<sup>rd</sup> Semester) of B.Sc. (Data Science) program under this regulation.
  - i. SGPA of 1<sup>st</sup> and 2<sup>nd</sup> semester examinations of such students will be considered while processing the second-year result.
- b. Students who have failed in one or more subjects of 1<sup>st</sup> year (1<sup>st</sup> and/or 2<sup>nd</sup> Semesters) of B.Sc. (Data Science) program under previous B.Sc. (Data Science) (OB-CBCS) direction but are eligible for admission to 2<sup>nd</sup> year (3<sup>rd</sup> Semester) under ATKT rules of the previous direction will be allowed for admission to 2<sup>nd</sup> year of B.Sc. (Data Science) program under this regulation.
  - i. Such students will be required to appear and pass their backlog papers at university examinations as per previous direction during the attempts as mentioned by the affiliating university from time to time.
  - ii. If such student fails to pass any of the backlog subjects in provided number of attempts, she/he will not be absorbed in this scheme of examination and shall be required to take a fresh admission to 1<sup>st</sup> year of B.Sc. (Data Science) program under this regulation.

#### B. Absorption of students to 3<sup>rd</sup> year (5<sup>th</sup> Semester) of B.Sc. (Data Science) under this regulation:

- a. Students who have passed 1<sup>st</sup> and 2<sup>nd</sup> year (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Semester) of B.Sc. (Data Science) program under previous B.Sc. (Data Science) (OB-CBCS) direction will be allowed for admission to 3<sup>rd</sup> year (5<sup>th</sup> Semester) of B.Sc. (Data Science) program under this regulation.
  - i. SGPA of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> semester examinations of such students will be considered while processing the third-year result.
- b. Students who have failed in one or more subjects of 2<sup>nd</sup> year (3<sup>rd</sup> and/or 4<sup>th</sup> Semesters) of B.Sc. (Data Science) program under previous B.Sc. (Data Science) (OB-CBCS) direction but are eligible for admission to 3<sup>rd</sup> year (5<sup>th</sup> Semester) under ATKT rules of the previous direction will be allowed for admission to 3<sup>rd</sup> year of B.Sc. (Data Science) program under this regulation.
  - i. Such students will be required to appear and pass their backlog papers at university examinations as per previous direction during the attempts as mentioned by the university from time to time.
  - ii. If such student fails to pass any of the backlog subjects in provided number of attempts, she/he will not be absorbed in this scheme of examination and

shall be required to take a fresh admission to 2<sup>nd</sup> year of B.Sc. (Data Science) program under this regulation.

**C. Absorption of students from other Non-Autonomous/Autonomous colleges:**

- a. Students from other non-autonomous or autonomous institutions affiliated to any state/central university shall be allowed to take admission to 2<sup>nd</sup> year (3<sup>rd</sup> Semester) of this program provided the student has passed all courses/subjects of 1<sup>st</sup> and 2<sup>nd</sup> semester examinations.
  - i. SGPA of 1<sup>st</sup> and 2<sup>nd</sup> semester examinations of such students will be considered while processing the second-year result.
- b. Students from other non-autonomous or autonomous institutions affiliated to any state/central university shall be allowed to take admission to 3<sup>rd</sup> year (5<sup>th</sup> Semester) of this program provided the student has passed all courses/subjects of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> semester examinations.
  - i. SGPA of 1<sup>st</sup> and 2<sup>nd</sup> semester examinations of such students will be considered while processing the second-year result.
  - ii. A student with backlog papers shall not be allowed for admission under this clause.

**D. Discontinuation of Course/s:** In case, any course/s are prescribed in the scheme of teaching and examination mentioned in this regulation is discontinued by the competent authority, the Institute shall continue to conduct examinations for THREE attempts and failure students shall clear the course/s in such THREE attempts. After, that the failure students shall be required to pursue the course/s replacing such course/s by seeking provisional admission by paying a fee of Rs. 2000 per course.

**18. Evaluation of Internship/Research Project:**

Internship and Research shall be compulsory for each student appearing 5<sup>th</sup> and 6<sup>th</sup> Semester respectively.

- (i) **Internship:** Each student has to mandatorily undergo Summer Internship Project (SIP) of 45 – 60 days. The SIP will commence after the end session examination of Semester IV. The SIP will be considered as a separate course having 4 credits and will be evaluated along with end session examination of Semester V.
- (ii) **Research Project:** The Capstone Project shall a mandatory 45-day research-intensive course in 6th semester, carrying 3 credits. The student shall prepare a is a detailed research report and a formal presentation demonstrating analytical depth, critical thinking, and a holistic understanding of business functions, which will be evaluated during the end-session examination of Semester VI.
- (iii) Internship/Research Project shall carry 100 marks each as follows:

Heads of Passing	Marks
Project Report Evaluation and Viva Voce by External Examiner/Industry Personnel	50
Project Report Evaluation and Viva Voce by Internal Examiner	50

- (iv) The internship (5<sup>th</sup> Semester) and Research Project (6<sup>th</sup> Semester) shall be taken up on individual basis.
- (v) For Internship/ Research Project a batch of Maximum **TWENTY projects** per guide/supervisor have to be allotted by the Institute.
- (vi) The Guide/Supervisor shall act as an internal examiner for Internship/ Research Project Examination.
- (vii) The guide or the supervisor shall be appointed by the institute and should be teaching in the M.Sc Computer Science/ MCA / M.Tech / B.Sc Data Science/ B.Tech Programme with minimum qualifications as prescribed by UGC/AICTE for Assistant Professor.
- (viii) The External examiner for Internship/ Research Project Evaluation shall be appointed by the institute from the list of full-time teaching faculty of the M.Sc Computer Science/ MCA / M.Tech / B.Sc Data Science/ B.Tech programme of any other institute/ University or Industry expert.
- (ix) Each such External examiner shall examine a maximum of TWENTY projects in the academic year.
  - ONE copy of Internship report/project work (Printed and hard bound) shall be submitted to the Institute at least one month before the commencement of the respective ESE for evaluation purpose.
  - A Candidate shall submit with his/her project work, a certificate from the Supervisor to the effect:-
    - That the candidate has satisfactorily completed the Internship/Project work for not less than prescribed number of hours mentioned in the directions.
    - That the Project work is the result of the candidate's own work and is of sufficiently high standard to warrant its presentation for examination.
    - The candidate shall submit his declaration that the Internship/Project is the result of his own research work and the same has not been previously submitted for any examination. The Project shall be liable to be rejected and /or cancelled if found otherwise.
    - The Internship/Project work shall be evaluated through Seminar and Viva-voce at the Institute by internal and external examiner appointed by Controller of Examination within 10 days of the completion of the respective semester examination.

**19.** Each student admitted to this program is required to earn adequate number of credits for Co-curricular courses as prescribed in the teaching and examination scheme. Guidelines and modalities related to evaluation of CC courses is described in Appendix No. \_\_\_.

**20.** If any question of interpretation of any clause arises for this Regulation and related appendices, the same shall be referred to the Director of the Institute whose decision in consultation with the Dean shall be final and binding on all concerned.

**21. Provision for Amendment:**

In case, any amendment is required to be made in provisions mentioned in this regulation, the same shall be recommended by the Board of Studies concerned and approved by the Academic Council and Governing Body of the Institute. A separate notification of amendment along with a revised regulation need to be issued by the competent authority.



**Dr. Lalit Khullar**

**Director**

Rubrics and detailed parameters for evaluation of Internship/ Research Project are mentioned in Appendix.

**Appendix 1**  
**Internship Evaluation Rubric (Total: 100 Marks)**

<b>Criteria</b>	<b>Sub-Criteria</b>	<b>Marks</b>	<b>Scale for Assessment</b>
1. Company and Industry Profile (10)	Clarity, relevance, and understanding of company operations and industry context	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)
2. Introduction of the Topic (15)	Relevance of topic to specialization	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Conceptual background and rationale for topic selection	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Clarity and scope definition of the topic	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
3. Objectives of the Study (10)	Specific, measurable, and relevant objectives	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Alignment of objectives with internship activities	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
4. Data Collection and Analysis (Optional) (15)	Appropriateness of data and sources used	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Application of analytical tools or methods	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Quality of findings and interpretation	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
5. Functional Learnings (20)	Understanding and application of domain knowledge (marketing, finance, HR, operations, etc.)	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)
	Linking academic concepts with practical exposure	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)

<b>Criteria</b>	<b>Sub-Criteria</b>	<b>Marks</b>	<b>Scale for Assessment</b>
6. Behavioural Learnings (20)	Professional attitude, ethics, and discipline	7	Excellent (7), Good (6), Average (5), Poor (4), Unsatisfactory (3–0)
	Communication and interpersonal skills	7	Excellent (7), Good (6), Average (5), Poor (4), Unsatisfactory (3–0)
	Adaptability, teamwork, and problem-solving approach	6	Excellent (6), Good (5), Average (4), Poor (3), Unsatisfactory (2–0)
7. Presentation and Viva Voce (10)	Structure and coherence of report presentation	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Clarity of understanding, confidence, and responses	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
<b>Total</b>		<b>100</b>	

**Appendix 2**  
**Research Project Evaluation Rubric (Total: 100 Marks)**

Parameter	Sub-Criteria	Marks	Scale for Assessment
1. Research Design and Planning (20 Marks)	Selection and relevance of research topic to specialization	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Clarity of research problem, objectives, and hypotheses	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Review of literature and theoretical framework	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Research design and planning (sampling method, timeline, limitations)	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
2. Data Collection and Analysis (25 Marks)	Relevance and adequacy of data collected (primary/secondary)	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)
	Application of analytical tools and techniques (quantitative or qualitative)	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)
	Validity, interpretation, and accuracy of analysis	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
3. Findings, Discussion, and Conclusions (25 Marks)	Clarity and relevance of findings to research objectives	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)
	Critical discussion, interpretation, and managerial implications	10	Excellent (10–9), Good (8–7), Average (6–5), Poor (4–3), Unsatisfactory (2–0)
	Practical recommendations, limitations, and scope for future research	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
4. Report Presentation and	Logical organization and structure of the report	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)

<b>Parameter</b>	<b>Sub-Criteria</b>	<b>Marks</b>	<b>Scale for Assessment</b>
Documentation (15 Marks)			
	Writing clarity, formatting, referencing, and tabulation quality	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Print quality, binding, and visual presentation (charts, tables, graphs)	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
5. Presentation and Viva Voce (15 Marks)	Clarity of presentation and communication skills	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Depth of understanding and command over research topic	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
	Ability to answer questions confidently and logically	5	Excellent (5), Good (4), Average (3), Poor (2), Unsatisfactory (1)
<b>Total</b>		<b>100</b>	