



TRIBHUVAN UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
SCHOOL OF MATHEMATICAL SCIENCES
BALKHU, KATHMANDU, NEPAL

Introduction of Master in Data Science (MDS) Program
&
Details of Admission Eligibility/ Procedure in MDS
Program -2078
(With Structure of Entrance Examination)

A. Introduction of Master in Data Science
(MDS) Program

1. Introduction

Master in Data Science (MDS) program of Tribhuvan University is implemented by the School of Mathematical Sciences (SMS) on a full time basis. MDS program focuses on the sets of core skills in numerous areas including programming, statistics, data analytics, machine learning, data wrangling, data visualization, communication, business foundations, and ethics—that increase their marketability in the business, industry and multinational companies.

2. Course Objectives

MDS is an interdisciplinary program and is the first of its kind in the Institute of Science and Technology, Tribhuvan University. After graduation, the students will be able to

- Collect, clean, store and query data from a variety of private and public data sources.
- Assess, evaluate and respond to decision-making needs and requirements.
- Apply appropriate analytic techniques to provide estimates that support decision-making and action.
- Communicate actionable information and findings in easy-to-understand written, oral and visual formats.

3. Duration and Nature of Course

Master in Data Science (MDS) is the full time, of 4 Semesters in 2 years duration. This program basically comprises of some compulsory foundational courses consisting of fundamentals of Mathematics, Statistics, and Computer Science and Information Technology plus some elective courses from a list of courses which may vary from year to year as a multi-exit model decided by the subject committee.

Total Credit: 60

Nature of course: Theory, Practical, Research Project, Seminar, Intern, Thesis.

4. Evaluation System

- a) 40% internal evaluation and 60% external exam. Internal exams are based on: Attendance/Assignment work / Oral test / Class test / Presentation / Class seminar / Project work/ Term exam etc. End semester exam by School in permission of exam board of TU.
- b) Evaluation of project or thesis: research / project monitoring by supervisor; Pre viva by the school after submission; evaluation of thesis by the Research Committee of the School with consent of the supervisor and the external.
- c) In each of the semester Exam and Internal Assessment, the student must secure at least 50% in order to complete the course.

B. Details of Admission Eligibility/ Procedure in MDS Program -2078

1. Eligibility for MDS Admission

The following is the minimum requirements to be eligible to apply for the MDS program:

- a) A minimum of 15 years' formal education (12 years of schooling plus three years of graduation).

- b) Must have secured a minimum CGPA of 2.0 or second division or 45% in Bachelor's level with B Sc CSIT or equivalent, B Math Sc or equivalent, B Sc (Mathematics) or equivalent, B Sc (Statistics) or equivalent, B Sc/BA with Mathematics in the first 2 year, B Sc/BA with Statistics in the first 2 year, BE or equivalent, BIT or equivalent, BCA or equivalent, BIM (with one Mathematics and one Statistics) or equivalent, are eligible to appear in the entrance exam.

2. Total Fee (for Batch 2078)

The total fee per student of MDS program will be Rs. 3,60,000/- for the whole two-year program except university semester examination fee. An additional Rs.15,000/- will be charged as Capstone Project/ Thesis processing fee at the starting of fourth semester. Each student shall pay all fees due for a semester at the beginning of the semester.

The details of fee structure will be provided in the admission time.

3. Intake Capacity and Scholarship

- 36 students (80 % as regular students and 20 % allocated as the Inclusive Quota according to T.U. rule) .
- Scholarship will be awarded to 10 % students according to T.U. rule.

4. Application Procedure(for Batch 2078)

The candidates need to apply online by filling up the online application form by visiting www.tu.iost.edu.np

The application procedures are as follows:

- a). The candidate should deposit an amount of Rs 1500/- as an application fee for entrance examination in the following account:

Account Name: T.U. School of Mathematical Sciences

Account Number: 04500106276401000001

Branch: Nepal Bank Limited Kirtipur

by submitting a voucher by filling Applicant's Name and MDS program in it.

- b). The candidate should fill up the other required fields in the application form without skipping any steps.
- c) The candidate also needs to upload his/her color photograph.

5. Important Dates(for Batch 2078)

Online Submission of Application Form Open: BS.2078 / 01 / 09

Online Submission of Application Form Close: BS 2078 /01 /28

Late Submission (with double Fee): From 2078/ 01/ 29 to 2078/ 02/ 02

Date of Written Exam: 8th Jestha 2077

The schedule for the entrance test and exam centre will be notified later.

6. Entrance Exam – Selection Criteria

The selection of students will be based on the following three criteria:

- A. Written Test - 70 %
- B. Academic Qualifications - 15 %
- C. Individual Presentation and Interview- 15 %

A. Written Test

The written test will cover 70 % marks of the entrance examination. It has 100 multiple choice questions based on the *Bachelor Level Curriculum* to be completed within 2 hours. The test paper will have FIVE sections as follows:

Test Sections	Number of Questions	Total Marks
Section I: Mathematics	25 Questions	25× 1 = 25 Marks
Section II: Statistics	25 Questions	25× 1 = 25 Marks
Section III: Computer Science and Information Technology	25 Questions	25× 1 = 25 Marks
Section IV: English	10 Questions	10× 1 = 10 Marks
Section V: Logical Reasoning	15 Questions	15× 1 = 15 Marks
Total	100 Questions	100 Marks

NOTE: *The total marks obtained by the candidates in written test out of 100 marks will be converted into 70 marks in the result of written test.*

Note: *Entrance Committee can adjust/ modify the marking rule for written test.*

B. Academic Qualifications

The total 15 marks for the academic qualifications are distributed as follows:

a) For 10+2 or equivalent:

Marks with 80 % and above) or grade A ⁺	Marks with (65 – 80) % or grade A, A ⁻ and B ⁺	Marks with (50 –65) % or grade B and B ⁻	Below 50 % or grade C
5	3.5	2.5	2

b) For Bachelor Degree or equivalent:

Marks with 80 % and above) or grade A ⁺ and A	Marks with (65 –80) % or grade A ⁻ and B ⁺	Marks with (50 –65) % or grade B and B ⁻	Below 50 % or grade C
10	7	5	3

Note: Entrance Committee can adjust / modify the marking rule for academic qualifications.

C. Individual Presentation and Interview

On the basis of the performance in written test, candidates will be short listed for presentation and interview. To qualify the students for the interview, the candidate must secure the cut-off marks (35 %).

1. Individual presentation : 5 Marks

Applicants should present their views and opinions on a given topic to the panel of judges for around 7 minutes.

2. Personal interview: 10 Marks

Personal interview measures applicants motivation, attitude and capability level to handle the pressure of the MDS program. The interview is conducted for around 10 minutes by a panel of experts by considering with the following points:

- i) Body language and Politeness – 1 mark
- ii) Dressing sense and Honesty – 1 marks
- iii) Basic knowledge on Current affairs – 2 marks
- iv) Knowledge about the Data Sciences and its tools – 3 marks
- v) Candidate's Vision/ Future Plan – 2 marks
- vi) Situational responses – 1 marks

Note: Entrance Committee can adjust/ modify the marking rule for presentation and interview.

7. Admission Process

The details of admission process will be published in the School's website www.sms.tu.edu.np after the publication of the entrance result.

For Detailed Information:

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