

# Advisory for Applicants on Maths proficiency

## 1. Advisory on Mathematical Proficiency

Before joining the programme, applicants are expected to be comfortable with **undergraduate-level mathematics** in the following areas:

- **Probability and Statistics:** descriptive measures, distributions, random variables, correlation, regression, hypothesis testing
- **Linear Algebra:** vectors, matrices, determinants, eigenvalues, transformations
- **Calculus:** differentiation, integration, and optimization concepts
- **Discrete Mathematics:** sets, relations, logic, and combinatorics

Applicants should Self-assess their proficiency in Math topics mentioned above. Those who feel the need to refresh or strengthen their fundamentals are strongly encouraged to first enrol in the Mathematics Bridge Programme.

## 2. The Mathematics Bridge Programme

**Duration:** 4 months (one trimester)

**Objective:** Strengthen foundational mathematics skills essential for success in the M.Sc. DS & AI programme.

**Mode:** 100% online

**Design:** Tailored by BITS Pilani Digital to match the exact mathematical foundations required before pursuing the MSc in DS & AI.

Upon successful completion, learners will receive an offer of admission to the next available batch of the M.Sc. DS & AI programme. Students enrolling in the bridge programme will **pay only the bridge course fee (INR 8000 only) initially**. After successful completion and at the time of admission, they will subsequently **pay the applicable fee** for the M.Sc in DS & AI. programme.

## 3. Enrolment Options

Eligible applicants receiving an admission offer can choose between:

1. **Direct Enrolment** into the M.Sc. DS & AI programme, if confident in mathematical proficiency; or
  2. **Bridge Pathway**, where they first complete the 4-month Mathematics Bridge Programme and then join the next M.Sc. cohort.
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