Course Code 400.1	Quantitative Reasoning-I	Credit Hours: 03

Numeric Reasoning:
Number system, basic arithmetic equations, units and conversions, dimensions, rates, ratios, percentage, scientific notation, computation with real number, operations of integers, exponent, square root, measurement scales.

Algebraic and Geometric Reasoning:
Basics of geometry, line, angle, circle, polygon, area, perimeter, volume, surface etc., introduction of set, properties and operation, functions, types of functions, graphical representation of functions, relations, types of relations, simplifying algebraic expressions exponents, factorization, algebraic solutions of linear and quadratic equations.

Statistical Reasoning:
Types of data, sources of data, tabular form of data, data interpretation, visual representation of data, population, sample, events, measure of central tendency, measure of dispersion, counting principles, permutation, combination, probability theory, discrete and continuous random number, discrete probability distributions.

Recommended Books:

1. Alan F. Beardon. (2005). Algebra and Geometry, 1st edition, Cambridge University Press.
2. Eric Zaslow. (2020). Quantitative Reasoning, 1st edition, Cambridge University Press.
3. Forest Jim. (2020). Introduction to Statistics: An Intuitive Guide for Analyzing Data and Unlocking Discoveries, Jim Publishing.
4. Rosen, K. H. (2018). Discrete Mathematics and its Applications, 7th edition, McGraw Hill.
5. Sevilla.A& Somers.K. (2008). Quantitative Reasoning: Tools for Today's Informed Citizen, 1st edition, Wiley.