

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)

I – SEMESTER

Course Title: Technical Mathematics

(Course Code: 1313401)

Diploma Programme in which this course is offered	Semester in which offered
Mechanical (Manufacturing Technology)	First Semester

Module.	Topics	Hours
Module 1	Basics 1.1 Addition, Subtraction, Multiplication and Division of Decimals and Fractions	2 h
Module 2	Units 2.1 FPS, CGS, MKS and SI Units 2.2 Conversion of Units	2 h
Module 3	Mensuration 3.1 Calculation of Area and Volume 3.1.1 Area of Square, Rectangles, Triangle and a Circle 3.1.2 Volume of Cube, Cylinder, Prisms, Pyramids, Sphere and Hemisphere	6 h
Module 4	Percentage, Ratio and Proportion 4.1 Percentage – problems in calculation of percentage and conversion of percentage to decimals and decimals to percentage. 4.2 Ratio and Proportion – simple problems	4 h
Module 5	Basics of Algebra 5.1 Solving simple equations	4 h
Module 6	Trigonometry 6.1 Trigonometric functions for a right-angled triangle. 6.2 Trigonometric ratios of acute angles like 30° , 45° , 60° 6.3 Pythagoras theorem and its application	6 h