

Semester	AUG 2023
Open to semester	1
Course code	MT1113
Course title	Calculus - I
Credits	3 /
Course Coordinator & participating faculty (if any)	Tejas Kalelkar, Haripada Sau
Nature of Course	Lectures and Tutorials
Pre-requisites	None
Objectives (goals, type of students for whom useful, outcome etc)	This is a fundamental course in Mathematics. It introduces the basic tools in Calculus of single variable. We develop the concepts of limits, continuity, differentiability and integrability.
Course contents (details of topics /sections with no. of lectures for each)	Limit of a function and limit laws, Continuity, Derivative, Differentiation rules, Derivatives of some standard functions, Chain Rule, Maxima and minima, L'Hopital's Rule, Area and Estimating with finite sums, Definite integral, Fundamental theorem of calculus, Indefinite integrals and substitution method, Integration by parts, Integrals of some standard functions, Improper integrals
Evaluation /assessment	End-Sem Examination-40% Mid-Sem Examination-30% Others-30%
Suggested readings (with full list of authors, publisher, year, edn etc.)	Calculus, by Thomas, Publisher: Addison-Wesley Calculus, by Stewart, Publisher: Cengage Learning Calculus, by Spivak, Publisher: Cambridge