COURSE CODE: MATH-165

COURSE NAME: Mathematics – II

CREDIT HOURS: Theory = 3   Practical = 0   Total = 3

CONTACT HOURS: Theory = 48   Practical = 0   Total = 48

PREREQUISITE: None

MODE OF TEACHING: Three hours of lecture per week

Course Description:

To prepare the students, not majoring in mathematics, with the essential tools of calculus to apply the concepts and the techniques in their respective disciplines.

TOPICS COVERED:

Week	Topic
1	Preliminaries: Real-number line
2	Functions and their graphs
3	Solution of equations involving absolute values, inequalities
4	Limits and Continuity: Limit of a function
5	Left-hand and right-hand limits
6	Continuity
7	continuous functions
8	Derivatives and their Applications
9	**Mid Semester Exam**
10	Differentiable functions
11	Differentiation of polynomial
12	Rational and transcendental functions
13	Derivatives
14	Integration and Definite Integrals: Techniques of evaluating indefinite integrals
15	Integration by substitution
16	Integration by parts

17	Change of variables in indefinite integrals
18	**End Semester Exam**

Text and Material:

1. Schaum's Outline of Calculus, 7th Edition by Elliott Mendelson, Publisher McGraw Hill LLC, Oct, 2021 ISBN 1264258348, 9781264258345

2. Basic Technical Mathematics with Calculus [RENTAL EDITION] 12th Edition January 23, 2022

3. Calculus Illustrated. Volume 4: Calculus in Higher Dimensions by Peter Saveliev May 8, 2021

ASSESSMENT SYSTEM:

Theoretical/Instruction	**100%**
Assignments	10%
Quizzes	15%
Mid Semester Exam	25%
End Semester Exam	50%

Practical Work	**0%**
Lab Attendance	0%
Lab Report	0%
Lab Quiz	0%
Lab Rubrics	0%