TEACHING PLAN
FOR EVEN SEMETER
Jan-2023-Jun 2023

Name of the Faculty: Mr. Dulal Baruah, M.Sc. MPhil.
Department: Mathematics

Semester: B.A. 2nd Semester (Honours) (CBCS)
Paper Name: Differential Equation **Paper Code: C2.2**
Contact Hour(s): 35 Hrs.

Objectives: After going through this course the students will be able to
• Use the techniques to solve differential equations.
• Apply these techniques in various mathematical models used in real life problems.

Sl. No.	Topics (As per University Syllabus)	Hours	Remarks/Books
1	General solution of homogeneous equation of second order	**3**	Books: S.L. Ross, *Differential Equations,* 3rd Ed.,
2	principle of super position for homogeneous equation	**3**	
3	Wronskian: its properties and applications	**3**	
4	Linear homogeneous and non-homogeneous equations of higher	**5**	
	Euler's equation, method of undetermined coefficients, method of	**4**	
	Evaluation of the Unit (problem practice)	**5**	
5	Tutorial	**2**	
Total		**25 Hrs**	
Unit-4		**Marks: 10**	**Contact hrs: 10**
6	Equilibrium points	**1**	Book: E. A. Codding ton, An Introduction to Ordinary Differential Equation,
7	Interpretation of the phase plane	**2**	
8	predatory-prey model and its analysis	**2**	
9	Epidemic model of influenza and its analysis,	**1**	
10	Battle model and its analysis	**1**	
11	Evaluation of the Unit (problem practice)	**2**	
12	Tutorial	**1**	
	Total	**10 Hrs**	