

Course Plan

Semester: 2

Year: FE

Course Title: Applied Mathematics-II

Course Code: FEC201

Total Contact Hours:

Duration of TEE: 3 hrs.

TEE Marks: 80

IA Marks: 20

Subject In-charge:

Course Coordinator:

Course Objectives (COs)

ID	Description	Bloom Taxonomy
CO1	c1	v2
CO2	c2	v1
CO3	c3	I1

Schedule Course

Date	Actual Date	Course	Module	Hour
13/01/2025		Applied Mathematics-II	Differential Equations of First Order and First Degree	1.1 Exact differential Equations
14/01/2025		Applied Mathematics-II	Differential Equations of First Order and First Degree	1.1 Equations reducible to exact form by using four rules of integrating factors
16/01/2025		Applied Mathematics-II	Differential Equations of First Order and First Degree	1.2 Linear differential equations (Review)
20/01/2025		Applied Mathematics-II	Differential Equations of First Order and First Degree	1.2 equation reducible to linear form
21/01/2025		Applied Mathematics-II	Differential Equations of First Order and First Degree	1.2 Bernoulli's equation
23/01/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.1 Linear Differential Equation with constant coefficient: complementary function
27/01/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.1 particular integrals of differential equation of the type $f(D)y = X$, where X is e^{ax} , $\sin(ax + b)$, $\cos(ax + b)$
28/01/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.1 particular integrals of differential equation of the type $f(D)y = X$, where X is $x^m e^{ax} \cdot V$
30/01/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.2 Method of variation of parameters
03/02/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.2 Method of variation of parameters
04/02/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.2 Method of variation of parameters
06/02/2025		Applied Mathematics-II	Higher Order Linear Differential Equations with Constant Coefficients and Variable Coefficients:	2.2 Method of variation of parameters
10/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.1 Beta and Gamma functions and its properties.
11/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.1 Beta and Gamma functions and its properties.
13/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.1 Differentiation under integral sign with constant limits of integration.
17/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.1 Differentiation under integral sign with constant limits of integration.
18/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.2 Rectification of plane curves in Cartesian form.
20/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.2 Rectification of plane curves in Cartesian form.
24/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.2 Rectification of curve in Polar forms.
27/02/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.2 Rectification of curve in Polar forms.
03/03/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.2 Rectification of curve in Polar forms.
04/03/2025		Applied Mathematics-II	Beta and Gamma Function, Differentiation under Integral sign and Rectification:	3.2 Rectification of curve in Polar forms.
06/03/2025		Applied Mathematics-II	Multiple Integrals:	4.1 Introduction, Evaluation of Double Integrals. (Cartesian & Polar).
10/03/2025		Applied Mathematics-II	Multiple Integrals:	4.1 Introduction, Evaluation of Double Integrals. (Cartesian & Polar).
11/03/2025		Applied Mathematics-II	Multiple Integrals:	4.2 Changing the order of integration.
17/03/2025		Applied Mathematics-II	Multiple Integrals:	4.3 Evaluation of double integrals over the given region. (Cartesian & Polar).
18/03/2025		Applied	Multiple Integrals:	4.4 Evaluation of double integrals by changing to polar