

# Government College For Women, Hisar

## Lesson Plan for the session 2023-24(Even Semester)

Name Of Teacher- Dr. Renu Sheoran

Subject- Mechanics-II

Class-B. Sc.III/ B. A. III

Semester-VI

DATE	TOPIC
01/01/24-06/01/24	Analytical conditions of equilibrium of coplanar forces: equilibrium of three forces, coplanar forces
08/01/24-13/01/24	trigonometric theorem, condition of equilibrium of coplanar forces
15/01/24-20/01/24	friction, problem based on equilibrium of rods and ladders
22/01/24-27/01/24	centre of gravity, centre of gravity of a uniform rod
29/01/24-03/02/24	centre of gravity of a thin uniform lamina in the form of parallelogram, a thin uniform lamina
05/02/24-10/02/24	centre of gravity three uniform rods forming a triangle, a uniform quadrilateral lamina
12/02/24-17/02/24	centre of gravity in the form of trapezium, centre of gravity by integration
19/02/24-24/02/24	Motion of a particle attached to an elastic string, Hook's law, motion of horizontal spring
26/02/24-02/03/24	work, power
05/03/24-09/03/24	Energy, Assignment
12/03/24-16/03/24	motion of a particle on smooth curves, outside and inside of smooth vertical circle
18/03/24-22/03/24	cycloid motion, motion on a rough curve under gravity
01/04/24-06/04/24	projectile motion of a particle in a plane

08/04/24-13/04/24	velocity at any point of trajectory, direction of a projection for a particle
15/04/24-20/04/24	range and time of flight on an inclined plane, direction of a projection for a particle
22/04/24-27/04/24	range and time of flight down an inclined plane, Test
29/04/24- onwards	revision
	<b>Sign of Teacher</b>

# Government College For Women, Hisar

## Lesson Plan for the session 2023-24(Even Semester)

Name Of Teacher- Dr. Renu Sheoran

Subject- Mechanics-II

Class-B. Sc.III/ B. A. III

Semester-VI

DATE	TOPIC
01/01/24-06/01/24	Analytical conditions of equilibrium of coplanar forces: equilibrium of three forces, coplanar forces
08/01/24-13/01/24	trigonometric theorem, condition of equilibrium of coplanar forces
15/01/24-20/01/24	friction, problem based on equilibrium of rods and ladders
22/01/24-27/01/24	centre of gravity, centre of gravity of a uniform rod
29/01/24-03/02/24	centre of gravity of a thin uniform lamina in the form of parallelogram, a thin uniform lamina
05/02/24-10/02/24	centre of gravity three uniform rods forming a triangle, a uniform quadrilateral lamina
12/02/24-17/02/24	centre of gravity in the form of trapezium, centre of gravity by integration
19/02/24-24/02/24	Motion of a particle attached to an elastic string, Hook's law, motion of horizontal spring
26/02/24-02/03/24	work, power
05/03/24-09/03/24	Energy, Assignment
12/03/24-16/03/24	motion of a particle on smooth curves, outside and inside of smooth vertical circle
18/03/24-22/03/24	cycloid motion, motion on a rough curve under gravity
01/04/24-06/04/24	projectile motion of a particle in a plane

08/04/24-13/04/24	velocity at any point of trajectory, direction of a projection for a particle
15/04/24-20/04/24	range and time of flight on an inclined plane, direction of a projection for a particle
22/04/24-27/04/24	range and time of flight down an inclined plane, Test
29/04/24- onwards	revision
	<b>Sign of Teacher</b>

**Government College For Women, Hisar**  
**Lesson Plan for the session 2023-24(Even Semester)**

Name Of Teacher- Mrs Sonal

Subject- Mechanics

Class-B. Sc.II/ B. A. II

Semester-IV

DATE	TOPIC
01/01/24-06/01/24	Forces acting at a point
08/01/24-13/01/24	Forces acting at a point
15/01/24-20/01/24	Parallel Forces,Moments
22/01/24-27/01/24	Moments,couples
29/01/24-03/02/24	couples,unit test -1
05/02/24-10/02/24	Forces in three dimensions
12/02/24-17/02/24	Forces in three dimensions, wrenches
19/02/24-24/02/24	Null lines and null planes, assignment
26/02/24-02/03/24	Motion along a plane curve
05/03/24-09/03/24	Motion along a plane curve,relative motion
12/03/24-16/03/24	Relative motion, simple harmonic motion
18/03/24-22/03/24	Newton's law of motion
01/04/24-06/04/24	Newton's law of motion,central orbits
08/04/24-13/04/24	Central orbits, unit test-2
15/04/24-20/04/24	Central orbits,Kepler's laws of planetary motion
22/04/24-27/04/24	Kepler's laws of planetary motion
29/04/24- onwards	revision

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# Government College for Women, Hisar

## Lesson Plan

Session 2023-24 Even Semester

<b>Class : B.Sc-I, BA-I</b>	<b>Teacher Name : Mr. Anil Budania</b>
<b>Subject : Vector Calculus &amp; Geometry</b>	<b>Subject Code : CML-206</b>
<b>Date</b>	<b>Topics</b>
1/1/2024-6/1/2024	<b>UNIT-I</b> Scalar and vector product of three vectors, product of four vectors.Reciprocal vectors.
8/1/2024-13/1/2024	Vector differentiation Scalar Valued point functions, vector valued point functions, derivative along a curve, directional derivatives
15/1/2024-20/1/2024	Gradient of a scalar point function, geometrical interpretation of grad .Divergence and curl of vector point function.
22/1/2024-27/1/2024	Gradient, divergence and curl of sums and product and their related vector identities.Laplacian operator.
29/1/2024-3/2/2024	<b>UNIT-II</b> Vector integration: Indefinite Integral, Definite Integral,Standard results of Integration.Line integral, Surface integral, Volume integral
5/2/2024-10/2/2024	Gauss Divergence Theorem, Divergence Theorem in Cartesian Co-ordinates, Green Theorem, Stoke's Theorem(Relation between line Integral and Surface Integral).
12/2/2024-17/2/2024	Stoke's Theorem in Cartesian form. Green's Theorem in Plane as special case of Stoke's Theorem,
19/2/2024-24/2/2024	problems based on these theorems.
	<b>Sessional Test and Assignment</b>
26/2/2024-2/3/2024	<b>UNIT-III</b> General equation of second degree. Tracing of conics, System of conics, Confocal Conics
4/3/2024-9/3/2024	Tangent at any point to the conic, chord of contact, pole of line to the conic, director circle of conic
11/3/2024-16/3/2024	Polar equation of a conic, tangent and normal to the conic.
18/3/2024-22/3/2024	<b>UNIT-IV</b> Sphere: Plane section of a sphere. Sphere through a given circle.
23/3/2024-30/3/2024	<b>Holi Vacation</b>
	<b>Sessional Test and Assignment</b>
1/4/2024-6/4/2024	Intersection of two spheres, Radical plane of two spheres, co-axal system of spheres
8/4/2024-13/4/2024	Cones. Right circular cone, Enveloping cone and reciprocal cone

15/4/2024-20/4/2024	Cylinder: Right circular cylinder, Enveloping cylinder
22/4/2024-30/4/2024	<b>Revision</b>

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# Government College For Women, Hisar

## Lesson Plan for the session 2023-24(Even Semester)

Name Of Teacher- Mrs Sonal

Subject- Partial Differential equations

Class-B. Sc.II/ B. A. II

Semester-IV

DATE	TOPIC
01/01/24-06/01/24	Formation of partial Differential equations
08/01/24-13/01/24	First order linear partial Differential equations
15/01/24-20/01/24	First order non linear partial Differential equations
22/01/24-27/01/24	First order non linear partial Differential equations, unit test-1
29/01/24-03/02/24	Linear partial Differential equations of second and higher order
05/02/24-10/02/24	Partial differential equations with variable coefficients reducible to equations with constant coefficients
12/02/24-17/02/24	Partial differential equations with variable coefficients reducible to equations with constant coefficients
19/02/24-24/02/24	Monge's method for partial differential equations of second order, assignment
26/02/24-02/03/24	Characteristics of second order partial differential equations and Cauchy's problem
05/03/24-09/03/24	Method of separation of variables: wave equations
12/03/24-16/03/24	Heat and Laplace equations, unit test-2
18/03/24-22/03/24	power series
01/04/24-06/04/24	power series
08/04/24-13/04/24	Bessel's equation and Bessel's function
15/04/24-20/04/24	Bessel's equation and Bessel's function, Legendre's equation
22/04/24-27/04/24	Legendre's equation
29/04/24- onwards	Revision

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## Government College For Women, Hisar

Lesson Plan for the session 2023-24 (Even Semester)

Name Of Teacher- Ms. Aarju, Ms. Sonal Subject- Linear Algebra

Class-B. Sc.III(C.S), B. Sc.III(N.M) and B.A.III

Date	Topics
1/1/2024-6/1/2024	Vector Spaces
8/1/2024-13/1/2024	Vector spaces and Subspaces
15/1/2024-20/1/2024	Basis
22/1/2024-27/1/2024	Dimension of vector space
29/1/2024-3/2/2024	Quotient space
5/2/2024-10/2/2024	linear transformations
12/2/2024-17/2/2024	Rank and Nullity
19/2/2024-24/2/2024	Algebra of linear trnsformations, Test
26/2/2024-2/3/2024	Matrix of linear transformations
4/3/2024-9/3/2024	Dual space, Assignment
11/3/2024-16/3/2024	Eigen values and eigen vectors
18/3/2024-22/3/2024	Eigen values and eigen vectors
23/3/2024-30/3/2024	Holi Vacation
1/4/2024-6/4/2024	Inner product spaces
8/4/2024-13/4/2024	Inner product spaces, Test
15/4/2024-20/4/2024	Linear operators on inner product spaces
22/4/2024 Onward	Revision

# Government College For Women, Hisar

## Lesson Plan for the session 2023-24(Even Semester)

Name Of Teacher- Dr. Aarti

Paper-Ordinary differential equation

Class-B. SC AND B.A. 1st

Semester-2nd

DATE	TOPIC
01/01/24-06/01/24	Different methods for solving Exact differential equations.
08/01/24-13/01/24	Problems on various methods.
15/01/24-20/01/24	Equation of first order but not of First degree.
22/01/24-27/01/24	Problems
29/01/24-03/02/24	Linear differential equations with constants co efficient
05/02/24-10/02/24	Homogeneous Linear equations
12/02/24-17/02/24	Problems on above topic
19/02/24-24/02/24	Linear differential equations of second order
26/02/24-02/03/24	Problems
05/03/24-09/03/24	Ordinary simultaneous differential equations

12/03/24-16/03/24	Problems
18/03/24-22/03/24	Laplace transforms
01/04/24-06/04/24	Problems
08/04/24-13/04/24	Problems
15/04/24-20/04/24	Inverse Laplace yransforms
22/04/24-27/04/24	Solution of differential equations by Laplace transformation
29/04/24- onwards	Revision

**Sign of Teacher**

# Govt. College For Women, Hisar

## Lesson Plan Session Jan 2024-April 2024

Name of Faculty: Ms Aarti kadian

Paper: Real and Complex analysis

Class: B.Sc.3<sup>rd</sup> (N.M., C.S.) and B.A. 3<sup>rd</sup>

Date	Topic
1/01/2024 to 6/01/2024	Definition and Examples of Metric space, Limit points, interior points, open and closed sets, closure and interior.
8/01/2024 to 13/01/2024	Subspace of a metric space, equivalent metrics, Cauchy sequences, completeness, Cantor intersection theorem.
15/01/2024 to 20/01/2024	Baire's category theorem, Contraction principle, Continuous functions, uniform continuity and compactness.
22/01/2024 to 27/01/2024	Sequential compactness, Bolzano- Weierstrass property, finite intersection property.
29/01/2024 to 03/02/2024	Improper integral and their convergence, Comparisons test.
5/02/2024 to 10/02/2024	Abel's and Dirichlet's tests, Frullani's integral, Integral as a function of parameter.
12/02/2024 to 17/02/2024	Continuity, differentiability and integrability of an integral of a function of a parameter.
19/02/2024 to 24/02/2024	Topology of complex numbers, Trigonometric and exponential, logarithmic and hyperbolic functions
26/02/2024 to 2/03/2024	Extended complex plane, Stereographic projection
5/03/2024 to 9/03/2024	Continuity and differentiability of complex functions, Analytic functions
12/03/2024 to 16/03/2024	C-R equations, harmonic functions and related problems.
18/03/2024 to 22/03/2024	Constructions of analytic functions.
01/04/2024 to 6/04/2024	Problems related to analytic functions.
8/04/2024 to 13/04/2024	Revision and Assignments
15/04/2024 to 20/04/2024	Revision and Assignments
22/04/2024 to 27/04/2024	Revision and Assignments
29/04/2024 to 30/04/2024	Revision and Assignments

Sign. Of Faculty

# Government College For Women, Hisar

## Lesson Plan for the session 2023-24(Even Semester)

Name Of Teacher- Dr. Harsha

Subject- Mechanics 1

Class-B. Sc.II/ B. A. II

Semester-4th

DATE	TOPIC
01/01/24-06/01/24	Formation of pde, first order linear pde
08/01/24-13/01/24	First order linear pde
15/01/24-20/01/24	First order non linear pde
22/01/24-27/01/24	Linear pde with constant coefficients
29/01/24-03/02/24	Linear pde with variable coefficients reducible to constant coefficients
05/02/24-10/02/24	Classification and canonical forms of second order pde
12/02/24-17/02/24	Classification and canonical forms of second order pde
19/02/24-24/02/24	Monge' s Method to solve second order pde
26/02/24-02/03/24	Characteristics of second order pde , cauchy problems
05/03/24-09/03/24	Wave equation, heat equation, Laplace equation

12/03/24-16/03/24	Power series
18/03/24-22/03/24	Bessel equation and Bessel function
01/04/24-06/04/24	Legendre equation
08/04/24-13/04/24	Legendre equation
15/04/24-20/04/24	Revision and class tests
22/04/24-27/04/24	Assignment and minors
29/04/24- onwards	Problems and solutions

**Sign of Teacher**

## Government College For Women, Hisar

### Lesson Plan for the session 2023-24(Even Semester)

**Name Of Teacher-** Dr. Renu Sheoran

**Subject-** Solid Geometry

**Class-**B. Sc.III/ B. A. III

**Semester-**VI

DATE	TOPIC
01/01/24-06/01/24	Conicoid

08/01/24-13/01/24	Conicoid
15/01/24-20/01/24	Conicoid
22/01/24-27/01/24	Conicoid
29/01/24-03/02/24	Conicoid
05/02/24-10/02/24	Plane sections of conicoids
12/02/24-17/02/24	Plane sections of conicoids
19/02/24-24/02/24	Plane sections of conicoids
26/02/24-02/03/24	Generating lines
05/03/24-09/03/24	Generating lines, Assignment
12/03/24-16/03/24	Generating lines
18/03/24-22/03/24	Confocal conicoids
01/04/24-06/04/24	Confocal conicoids
08/04/24-13/04/24	Reduction of second degree equations, Unit test

15/04/24-20/04/24	Reduction of second degree equations
22/04/24-27/04/24	Reduction of second degree equations
29/04/24- onwards	Revision

**Sign of Teacher**

<b>Government College For Women, Hisar</b>	
<b>Lesson Plan for the session 2023-24(Even Semester)</b>	
<b>Name Of Teacher- Dr. Renu Sheoran</b>	
<b>Subject- Mechanics-II</b>	
<b>Class-B. Sc.III/ B. A. III</b>	
<b>Semester-VI</b>	
<b>DATE</b>	<b>TOPIC</b>
01/01/24-06/01/24	Analytical conditions of equilibrium of coplanar forces: equilibrium of three forces, condition of equilibrium
08/01/24-13/01/24	trigonometric theorem, condition of equilibrium of coplanar forces
15/01/24-20/01/24	friction, problem based on equilibrium of rods and ladders
22/01/24-27/01/24	centre of gravity, centre of gravity of a uniform rod
29/01/24-03/02/24	centre of gravity of a thin uniform lamina in the form of parallelogram, a thin uniform triangular lamina

05/02/24-10/02/24	centre of gravity three uniform rods forming a triangle, a uniform quadrilateral lamina, Test
12/02/24-17/02/24	centre of gravity in the form of trapezium, centre of gravity by integration
19/02/24-24/02/24	Motion of a particle attached to an elastic strings , Hook's law, motion of horizontal and vertical elastic string
26/02/24-02/03/24	work, power
05/03/24-09/03/24	Energy, Assignment
12/03/24-16/03/24	motion of a particle on smooth curves, outside and inside of smooth vertical circle
18/03/24-22/03/24	cycloid motion , motion on a rough curve under gravity
01/04/24-06/04/24	projectile motion of a particle in a plane
08/04/24-13/04/24	velocity at any point of trajectory, direction of a projection for a particle
15/04/24-20/04/24	range and time of flight on an inclined plane, direction of a projection for a particle for a given range and velocity
22/04/24-27/04/24	range and time of flight down an inclined plane, Test
29/04/24- onwards	revision
	<b>Sign of Teacher</b>

# Government College For Women, Hisar

## Lesson Plan for the session 2023-24(Even Semester)

Name Of Teacher- Dr. Harsha

Subject- Mechanics 1

Class-B. Sc.II/ B. A. II

Semester-4th

DATE	TOPIC
01/01/24-06/01/24	Forces in two dimensions Parallelogram law triangle law
08/01/24-13/01/24	Polygon law of forces
15/01/24-20/01/24	Lami ' s theorem, resultant of concurrent and coplannar forces
22/01/24-27/01/24	Conditions of equilibrium
29/01/24-03/02/24	Conditions of equilibrium
05/02/24-10/02/24	Like and unlike parallel forces
12/02/24-17/02/24	Like and unlike parallel forces
19/02/24-24/02/24	Moments and couples
26/02/24-02/03/24	SHM

05/03/24-09/03/24	SHM
12/03/24-16/03/24	Newton's law of motions
18/03/24-22/03/24	Newton's law of motions
01/04/24-06/04/24	Central orbits
08/04/24-13/04/24	Forces in three dimensions
15/04/24-20/04/24	Null lines and wrenches
22/04/24-27/04/24	Motion along a plane curve, relative motions
29/04/24- onwards	Kepler laws and revision

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