Lesson Plan 2025-2026 (odd semester)

M.Sc 1st Sem (Mechanics of Solid)

S.No	Weeks	Syllabus
1	11/8 – 14/8	Tensor Algebra :- Coordinate - transformation, Cartesian tensor of different order, Properties of tensors.
2	18/8 – 23/8	Isotropic tensor of different orders & relⁿ between them Symmetric & Skew Symmetric tensors.
3	01/09 – 6/09	Affine transformation, Infinitesimal Affine deformation. Strain tensor Geometrical Interpretation of strain compo
4	8/09 – 13/09	Strain quadric of Cauchy Principal strain, Invariants, General Infinitesimal deformation. Example of strain, eqⁿ of Compatibility.
5	15/09 – 20/09	Stress Vector, Stress tensor, eqⁿ of equilibrium, Transformation of coordinates, stress quadric of Cauchy Principal stresses, Mohr's Circle & Example of stressed
6	24/09 – 27/09	Equation of Elasticity : Generalised Hooke's Law, Anisotropic Symmetries, Homogenous Isotropic Media, Elasticity modu for Isotropic Media
7	29/09 – 4/10	Equilibrium & dynamic eqⁿ for an isotropic elastic solid, Strain energy function & its connectio with Hooke's Law
8	6/10 – 11/10	Beltrami - Michell Compatibility eqⁿs. Uniqueness of Solution. Clapeyron's Thᵐ. Saint - venant's Principle
9	13/10 – 18/10	Variational Methods :- Variational Problems & Euler's eqⁿ. Theorem of minimum potential energy
10	27/10 – 01/11	Theorem of minimum complementary energy. Reciprocal theorem of Betti & Rayleigh
11	3/11 – 8/11	Ritz Method : one & two dimensional Cases. Galerkin Method, Method of Kantorovich.
12	10/11 – 15/11	Wave Propagation in infinite regions. Surface wav
13	17/11 – 24/11	Revision & Test
14	25/8 – 30/8	Tensor invariant, Deviatoric tensors, Eigen valu & eigen vector of a tensor Scalar, Vector, tensor Funct Comma notation, Gradient, divergence & Curl of a tensor fie

Lesson plan 2025-2026(odd semester)		
B.Com 1st Sem (Business Mathematics). Neeru Gupta		
Sr. No	Weeks	Syllabus
1	22/7-26/7	Representation of sets
2	28/7-02/08	equivalent sets, power sets, complement of a set , venn diagrams
3	4/08-8/08	Union and intersection of sets, de-morgan's laws, logical statement
4	11/8-14/8	logical statement and truth tables
5	18/8-23/8	Logarithms: law of operations
6	25/8-30/8	log tables, arithmetic and geometric progression
7	1/09-6/09	definition of matrix, order, equality, types of matrix, addition of matrices
8	8/09-13/09	Multiplication and multiplication with scalar and their simple properties
9	15/09-20/09	determinant of a square matrix, properties of determinants, minors, co-factors and application of determinants in finding the area of triangle
10	24/09-27/09	adjoint
11	29/09-4/10	inverse of square matrix
12	6/10-11/10	solutions of a system of linear equations by example
13	13/10-18/10	compound interest : different type of interest rates
14	27/10-01/11	Types of annuties, present values case
15	3/11-8/11	amount of an annuity including the case of continuous compounding
16	10/11-15/11	valuation of simple loans and debentures
17	17/11-24/11	problems related to sinking funds