AN INTRODUCTION TO NONLINEAR SOLID MECHANICS

Module	H	Topic
1	1	Mathematical preliminaries
1	2	Metric and general basis
2	2	Kinematics, part 1 (motion and transformations)
2	2	Kinematics, part 2 (kinematics of local deformation, deformation gradient)
3	2	Kinematics, part 3 (polar and spectral decomposition)
3	2	Kinematics, part 4 (Examples), Stress
4	2	Balance principles
5	2	Thermodyamics laws
6	2	Objectivity of the constituive laws
7	2	Hyperelasticity, part 1 (isotropy)
7	2	Hyperelasticity, part 2 (anisotropy)
8	2	Plasticity: J2 and pressure dependent small strain plasticity
9	2	Finite plasticity: Multiplicative decomposition and exponential and logarithmic mappings
10	2	Complex materials: fiber reinforced tissues, nematic liquid crystals, metamaterials

Date		6-Nov-23	7-Nov-23	9-Nov-23	13-Nov-23	14-Nov-23	16-Nov-23
Classroom		Leonardo 3.1.6	Leonardo 3.1.3	Bovisa LM1	Bovisa BL27.05	Bovisa B2.25	Bovisa LM1
9:15	10:15		2			8	
10:15	11:15		2			8	
11:15	12:15		2			9	
12:15	13:15		2			9	
13:15	14:15						
14:15	15:15	1	3	4	6		10
15:15	16:15	1	3	4	6		10
16:15	17:15	1	3	5	7		Seminar
17:15	18:15	1	3	5	7		Seminar
18:15	19:15						