

SOLID MECHANICS

Professor

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Institution

University of Florence

General Information

Massimiliano Lucchesi

The course presents an introduction to the classical theories of continuum mechanics, in particular to linear and nonlinear theories of elasticity. These theories are important both for their applications and because they constitute the basis for further developments in the study of the behaviour of materials and structures.

Materials

M. E. Gurtin "An Introduction to Continuum Mechanics", Academic Press (1981).

M. E. Gurtin, E. Fried, L. Anand "The Mechanics and Thermodynamics of Continua", Cambridge U. P. (2010). Notes to the Course.

Schedule

Dates	Description
06-03-2023, 10-12	Bodies and deformations
08-03-2023, 10-12	Motions
13-03-2023, 10-12	Conservation of mass; linear and angular momemtum
15-03-2023, 10-12	Force, stress; balance of momentum
20-03-2023, 10-12	Constitutive assumptions
23-03-2023, 16-18	Change in observer
27-03-2023, 10-12	Finite elasticity
29-03-2023, 10-12	Linear elasticity
	Total 16 Hours - 8 Credits

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