Course Title: Thermodynamics and Transport Phenomena	**Number of Units:** 1
SSD : ING-IND/22	**CFU:** 9
Course aims: The Course presents the basis of physical and mathematical description of Thermodynamics and Transport Phenomena from a microscopic point of view.	
Course Description: Thermodynamics: Review of Thermodynamics for homogeneous and piecewise homogeneous systems. Role of constitutive equations.Introduction to (classical) Statistical Mechanics: basic laws and selected applications (e.g., derivation of equilibrium constitutive equations). Nonhomogeneous systems: general balance equations for their thermodynamics. Transport phenomena**:** Microscopic approaches to the (classical) dynamics of nonhomogeneous systems**.** Boltzmann equation, Smoluchowsky equation, multiparticle simulations. Selected applications: fluids, polymeric liquids, liquid crystals.	
Assumed Background:	
Assessment methods:	