

Course Title: Waves	Number of Units: 1
SSD : ING-IND/06	CFU: 6
Course aims: The behaviour of water waves and the propagation characteristics of sound and light are familiar from everyday experience. This course accounts for the physical description and the underlying mathematical theory of various wave phenomenologies, with emphasis on unifying ideas.	
Course Description: Hyperbolic and dispersive waves; waves and first order equations; Burgers' equation; gasdynamics waves; the wave equation: acoustics, elasticity, electromagnetic waves; linear dispersive waves; group velocity; water waves; instability; brief overview of solitary waves.	
Assumed Background: Mathematical Physics Models	
Assessment methods: Oral examination	