

<b>Course Title:</b> Nonlinear Dynamics and Control	<b>Number of Units:</b> 1
<b>CFU:</b> 6	<b>SSD:</b> ING/INF-04
<b>Course aims:</b> The goal of this course is to introduce students to the foundations of the analysis and control of nonlinear systems and illustrate their most relevant applications in Science and Engineering.	
<b>Course Description</b> Nonlinear Systems: fundamental concepts and introduction; Lyapunov based control strategies; stability and passivity of input-output systems; Synthesis of Nonlinear controllers: perspectives and methodologies; Feedback Linearization; Hybrid and switched control; Adaptive Control; Introduction to Consensus and Synchronization of Network systems.	
<b>Assumed Background:</b> Nonlinear Systems	
<b>Assessment methods:</b> Oral examination and project work	