

## DESCRIPTION OF THE EDUCATIONAL ACTIVITY

Academic year: *2010-2011*

Course title: *Mechatronics*

Course number:

Type of educational activity: *optional subject*

Subject Group: *ING-IND/13*

Year of study: *3<sup>rd</sup> year "Laurea" (B.Sc. Mech Eng)*

Semester: *2<sup>nd</sup>*

Total number of credits: *6*

Global workload (n. of hours) : *150*

Number of hours allocated to: lectures, tutorials, laboratory, individual study: *28, 16, 16, 90*

Name of lecturer: *Adolfo Senatore*

Objectives of the course: **To give to the students the basic knowledge about the integration of mechanical, electronic and acquiring/processing devices. Software tools and laboratory test rigs are also used for simulating simple dynamic systems.**

Prerequisites: *Basic knowledge of Dynamics of Machine Systems.*

Course contents:

*Systems classifications. Examples, solution methods. Transducers for mechanical devices monitoring. Measurement system and integration with the controller. Motion control: actuators and power transmission; hydraulic systems and control. Simulation.*

Recommended reading:

Teaching methods: *lectures, exercises, laboratory applications.*

Assessment methods: *written and oral examination*

Language of instruction: *Italian (during office hours: available in English)*

Additional information: *for further information: a.senatore@unisa.it*