

DESCRIPTION OF THE EDUCATIONAL ACTIVITY

Academic year: **2010-2011**

Course title: ***Renewable Energy Plants***

Course number:

Type of educational activity: ***optional subject***

Subject Group: ***ING/IND08***

Year of study: ***3rd year "Laurea I Livello"***

Semester: ***2nd***

Total number of credits: **6**

Global workload (n. of hours) : **140**

Number of hours allocated to: lectures, tutorials, laboratory, individual study: **40, 15, 5, 80**

Name of lecturer: ***Gianfranco Rizzo***

Objectives of the course: ***Provide basic skills on plants using renewable energy sources.***

Prerequisites: ***Physics, Applied Thermodynamics***

Course contents:

Generalities on energy sources and their environmental impact. Solar energy. Photovoltaic. Thermal solar plants. Wind energy. Wind turbines. Biomasses. Cogeneration. Geothermal plants. Wave and tidal power. Storage systems.

Recommended reading:

G.Rizzo, Impianti ad Energia Rinnovabile, c/o CUES. Lecture notes.

G.Boyle, Renewable Energy, The Open University.

R.Pallabazzer – Sistemi eolici Ed. Rubattino 2004

B.Sorensen, Renewable Energy, Academic Press.

Teaching methods: ***lectures***

Assessment methods: ***a written test and an oral examination***

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

Additional information: ***further information can be requested via e-mail: grizzo@unisa.it***