Rationale

Proper use and consumption of energy is one of the most pressing problems today. Current human development has reached an unthinkable level in the past due to an enormous energy consumption, although a part of the population can not access an indispensable minimum. Even when energy efficiency can be improved, an increase in global energy consumption is necessary for the entire world population to achieve an acceptable standard of living.

But the production and consumption of energy has consequences that in the not-too-distant future can lead to great disorders and conflicts, as well as threatening life forms on the planet. Renewable energies can be part of the solution to this problem, but its implementation must face many challenges: cost reduction, reliability of supply and opposition of economic interests.

Spain is one of the countries where new renewable energies (photovoltaic, wind or thermoelectric solar) have grown more, and they currently produce a significant part of our energy consumption. This development has been carried out in a few years, barely a decade, and has been a technical and economic challenge. Integration into the electrical system and market can be seen as a model to follow in many respects. The cost of this integration, however, has been the subject of controversy, growth has been uneven, or even spasmodic, and the current scenario for renewable energy is uncertain. On the one hand, the environmental advantages produced, as well as the impetus it has given to employment and research have been ponted out. On the other hand, the cost that has supposed for the Spanish consumer have been high.

This course will present the concepts necessary to form an own and informed opinion on the energy problem, in particular on renewable energies.

The course is designed so that the student will discover for her/himself the situation of renewable energies in Spain and form, expose and discuss their points of view.