

Energy Renewable

COURSE IDENTIFICATION

CODE	SEM	HT	HP	HA	SCT	PREREQUISITES	COURSE LEVEL OR CATEGORY	RESPONSABLE UNIT
AG100531	Summer	2	0	4	4	Postgraduate inscription	Elective	Postgraduate School

One SCT credit point is equivalent to 25 student learning hours.

COURSE DESCRIPTION

This course presents an overview of different energy renewable sources, considering the new trends on wind and solar energy. Modelling and remote sensing approaches will be also an asset of this course in order to present the recent trends about this technology on developed countries and the possible applications in Chile.

LEARNING STRATEGIES

Lectures, group discussion.

COURSE COMPETENCIES (Type: B=Basic, G=Generic, E=Specific)

At the conclusion of this class, students will be able to:

- Recognize and understand a broad overview solar and wind energy issues and new trends at global scale (E).
- Integrate knowledge about energy demand and production (G).

LEARNING RESOURCES

Lectures. Case studies. Student debates.

COURSE OUTLINE

Chapter	Content
Current status of Energy Renewable at global scale	This topic will focus on global current status of renewable energy, main concepts, distribution and the most promising techniques available at the present.
Solar Energy and new trends	This topic gives an overview about solar energy and its trends with special focus on technology developments, the history of solar energy and the next generation of solar energy production
Wind Energy: The debate of on-shore and off-shore assessments	This topic presents and discusses the main concepts of wind energy, describing the debate of in land or sea wind farms, the new technologies and drawbacks.
What's next on solar and wind energy?	This topic will be focus on the benchmarking about solar and wind energy, power assessments, technology outbreaks and the future development plans for each technology as hybrid generation.

Reading Materials

- During this course, several recent papers will be release to the students.

INSTRUCTORS (List non-exclusive)

<i>Instructor</i>	<i>Department</i>	<i>Area or major field</i>
Cristian Mattar	Environmental Science, University of Chile	Remote Sensing and Energy Renewable

GRADING (under review every term)

<i>Activity</i>	<i>Percentage (%)</i>
Case study presentation	50
Literature review	50