

OUTSTANDING FEATURES

of the master's

TEACHING

We have the best researchers from the UAL (University of Almería) and PSA (Plataforma Solar de Almería), the latter being the main research centre for concentrating solar power technologies at a global level. All our participating teachers are internationally renowned professionals.

FACILITIES

Practical field work will be carried out at the PSA, recognised as a Unique Scientific and Technological Facility (ICTS) by the Spanish Government and as a Large-Scale Research Facility by the EU, and at the joint research centre (UAL-PSA), CIESOL on the University of Almería Campus.

COURSE CONTENT

This Masters specialises in Solar Energy, including state of the art applications in solar thermal and photovoltaic (PV) power plants, as well as emerging technologies in applied solar energy such as desalination, water treatment, agriculture, photo-bioreactors and industrial processes.

The hallmarks of this course, along with its quality, make it an attractive proposition for students, both Spanish as well as those from other countries, who want to gain a first-rate qualification in the field of solar energy and its many applications.

<http://cms.ual.es/UAL/estudios/masteres/MASTER7106>

MASTER'S IN SOLAR ENERGY

Official University Master's

This University Master's in Solar Energy will provide graduate students with a series of skills in the following areas to help them further their career ambitions:

- Concentrating solar systems.
- Non-concentrating solar systems.
- PV solar systems.
- Solar energy applications in desalination, agriculture and construction.
- Solar photo-processes and photo-reactors.
- Evaluation of solar resources.

Part of the course content will be focused on research in solar energy and publishing results in scientific journals. Proposal preparation and project execution will also be covered.

Great emphasis will also be placed on practical work in scientific research and engineering to be able to gain access to both PhD programmes or jobs in the industry.

The participation of PSA (Plataforma Solar de Almería), whose applied research at international level is second to none, singles this Master's out from all others.



<http://cms.ual.es/UAL/estudios/masteres/MASTER7106>

Places available: 30

Admissions and enrolment: <http://cms.ual.es/UAL/estudios/masteres/admission/MASTER7106>

e-mail: mastersolar@ual.es

MASTER'S IN SOLAR ENERGY

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Organizers:



MASTER'S IN SOLAR ENERGY

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MAIN GOALS?

1st SEMESTER MODULES AND SUBJECTS

MODULES AND SUBJECTS	ECTS
Cross-cutting matters	
- Solar Resources	3
Non-concentrating solar systems	
- Solar Energy at Low Temperature	3
- Solar Energy and Construction	3
- Solar Energy and Agriculture	3
- Photo-reactors and Photo-bioreactors	4,5
- Solar Energy and Desalination	3
Concentrating solar systems	
- Medium Concentration Solar Energy	4,5
- High Concentration Solar Energy	6



The main goal of this University Master's in Solar Energy is specialised, high-level training in solar energy applications, geared specifically towards professional development. The student will prepare and defend a Master's Project at the end of the second semester.

WHEN AND WHERE?



October to April, five hours per day (09:00-14:00), Monday to Friday. The theoretical part of the course will be carried out at the University of Almería, with practicals being done at the Plataforma Solar de Almería. The defense of the Master's Project will take place in July or September.

2^o SEMESTER MODULES AND SUBJECTS

MODULES AND SUBJECTS	ECTS
Concentrating solar systems	
- Thermal Storage and other concentrating solar energy applications	4,5
Photovoltaic Solar Systems	
- Photovoltaic Solar Systems	6
Cross-cutting matters	
- Modelling, control and energy management in solar energy systems	4,5
- R&D&I in Solar Energy	3
Experimental tasks and projects	
- Field work at the PSA facilities	3
- Case studies and economic analysis of projects	3
Master's dissertation	
- End-of-Master Project	6



TEACHING STAFF?

Senior researchers at Plataforma Solar de Almería and University of Almería, highly skilled in the design, operation and maintenance of solar systems that encompass a wide range of applications of this renewable energy source (thermal applications, power generation, desalination, photochemistry, greenhouses, and passive solar design, among others), together with the development of materials, modelling, control systems, management and process optimisation involving these applications.

WHO CAN APPLY?

Students from the following degree courses, in order of preference, will be accepted onto the University Master's in Solar Energy:

- Industrial Engineering
- Electrical Engineering
- Mechanical Engineering
- Electronics & Controls Engineering
- Chemical Engineering
- Civil Engineering
- Aeronautical Engineering
- Naval Engineering
- Materials Engineering
- Physics
- Chemistry

When the available positions are not taken up by graduates from the above list, other Official University studies will be considered, namely:

- Information and Communication Technologies Engineering
- Information Technology Engineering
- Telecommunications Engineering
- Agricultural Engineering,
- Architectural Engineering
- Architecture
- Environmental Science



FURTHER INFORMATION

<http://cms.ual.es/UAL/estudios/masteres/MASTER7106>
 Plataforma solar de Almería: www.psa.es
 CIESOL: www.ciesol.es

e-mail: mastersolar@ual.es

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