

INTERNSHIP OFFER FOR INTERNATIONAL STUDENTS

INSTITUTION	Universidad Politécnica de Cartagena www.upct.es South-East of Spain
SHORT DESCRIPTION OF THE INSTITUTION	The UPCT is a public institution, established in 1998 in Spain. It is comprised of 7 Schools of Engineering, Business and Architecture and offers several Master and PhD Programmes.
RECEIVING SCHOOL/FACULTY	Escuela Técnica Superior de Ingeniería Agronómica (ETSIA) School of Agricultural Engineering
ADRESS	Paseo Alfonso XIII, 48 30203 – Cartagena, Murcia, Spain
PLACEMENT OFFERED	Department of Agricultural Engineering. Plant Production Area.
DESCRIPTION OF THE PLACEMENT ACTIVITY	<p>Title: Plant Production.</p> <p>Mentor: Dra. María del Carmen Martínez Ballesta.</p> <p>Overview: The student is expected to be involved in a European project Hort2the future related to the use of new irrigation technologies in order to avoid soil compaction and soil borne diseases.</p> <p>Key Responsibilities: During the stay, the student is expected to work in different activities of the project with multidisciplinary tasks. This will involve greenhouse trials and laboratory assays to study the response of plant infection to micro and nanobubbles in the irrigation water.</p> <p>Distinct Molecular biology methodologies will be applied as</p> <ul style="list-style-type: none"> • DNA extraction and quantification. • Quantitative PCR. <p>in order to identify and quantify the pathogen</p> <p>Also, plant physiological measurements will be carried out as photosynthesis rate, stomata conductance, transpiration and root growth parameters.</p> <p>Skills Developed:</p> <ul style="list-style-type: none"> • Technical Skills: soil and plant sampling , lab work, use of photosynthesis chamber, WinRHIZO • Soft Skills: Communication, teamwork, time management, problem-solving, leadership, etc.

	<p>Reflection: With this stay, the student will gain knowledge about new techniques (macro and nano-bubbles) applied in the irrigation system in order to manage soil compaction, the lack of oxygenation in the root system and soil borne infections.</p> <p>The student will be integrated in the research team (3 senior researchers, 1 post-doctoral research, 2 master student and 1 technician) participating in the on-line meetings with other European partners.</p>
REQUIRED STUDENT PROFILE	Master's or undergraduate student in Agricultural Sciences, Environmental Sciences, Biology or Biotechnology.
REQUIRED SKILLS	<ul style="list-style-type: none"> • Precision in conducting experiments and recording data. • Competence in using laboratory equipments (PCR). • Skills in handling and processing biological samples. • Ability to present and discuss research findings clearly. • Attitude to work in group.
WORKING LANGUAGE	Spanish and/or English.
DURATION	Four months.
WORKING HOURS	30 hours per week.
FINANCIAL AID	No. FREE SPANISH CLASS ACCORDING THE ACCADEMIC YEAR.
ACADEMIC CONTACT	Dra. María del Carmen Martínez Ballesta. Mentor mcarmen.ballestas@upct.es +34 968 325457
ADMINISTRATIVE CONTACT	Anna Gargiulo – International Office relint@upct.es +34 968 325971