

A Double Degree Agreement

between

Màster Interuniversitari de Maneig de Sòls i Aigües

Universitat de Lleida – Universitat de Barcelona – Universitat Autònoma
de Barcelona – Universidad Pública de Navarra

and

Master in Environmental Water Management
Master in Land Reclamation And Restoration
Master in Environmental Engineering
Master in Integrated Landscape Ecology

Cranfield University

Lleida, November 2014

1. Motivation

Environmental sciences comprise a large scope of disciplines, in such a way that degrees having this denomination may deal with very diverse issues, from terrestrial to water environments, under agricultural, forest or urban uses, and with different problems of land and water degradation.

The masters that are involved in this double degree agreement are the Master in Soil and Water Management (MAGSA) of the University of Lleida on one side ; and four different masters on environmental sciences of Cranfield University (CU) on the other side. They are different in duration (1.5 years / 1 year), in scope (more general / more specific), in structure (combined practice and lectures / concentrated teaching modules), in language used (Spanish / English) and in the context they are developed (semi-arid Mediterranean / moist-temperate). All of them deal with natural environments –terrestrial or aquatic- and have as general objectives the development of management techniques in order to maintain or improve soil and water quality.

A double degree that combines both masters have advantages for the Lleida students since they will acquire a higher specialization in a given field of environmental sciences and practical experience in temperate environments, besides the knowledge on semi-arid Mediterranean environments.

The collaboration between both universities, in particular between the ETSEA and CU through different exchange programmes, was initiated in 2006. It has been a success in the sense that it allowed many students and lecturers to profit from learning and lecturing experiences in similar fields, that resulted in an enrichment of their respective curricula and therefore in a higher competitiveness in the labour market within Europe and overseas. This success is a warranty that the double degree agreement proposed here can also be positive for the students and lecturers of both institutions.

2. Goal of the proposal

To provide students with the possibility to obtain a double master degree after completion of some complementary courses besides the degree followed in the home institution.

3. Proposal of the agreement

The basic proposal consists of obtaining the double degree after 2 study years, one in each university, instead of 2.5 years that would last the two MSc degrees independently, and with the cost of only one of the degrees. This is possible because of the overlapping of some of the subjects and modules between the masters, but mostly, because of the similarity of their objectives.

The amount of students allowed to follow this double degree will be 2 students per academic year (4 students in the field of Agriculture, Forestry and Veterinary / Biological and related sciences)

4. Comparison between the masters of the two institutions

The MAGSA is a 90-ECTS, 1.5 year master, consisting of 60 compulsory ECTS credits (600 scheduled hours) that are divided into 5 Matèries of 12 ECTS, which contain 2 to 4 subjects each. These compulsory subjects are completed during the first year (October to July). The second half year consists of a Matèria of 10 optional ECTS credits starting in September (100 scheduled hours, between 3 and 4 subjects) that has to be selected out of 3 options (Management of forest soils, Management of agricultural soils, Hydrology). These courses are followed by a MSc thesis of 20 ECTS credits that lasts about 2-3 months full-time work on a research project or in a institution or company, that is submitted and defended in front of a 3-member jury. This second half year begins in September and normally ends in February.

The CU master degrees are composed by teaching modules (80 CU credits, corresponding to a variable amount of scheduled hours between 216 and 295, not counting induction modules, depending on the MSc), a group project (40 CU credits) and a thesis project (80 CU credits).

The comparative calendars of the MSc of both institutions is the following:

	O	N	D	J	F	M	A	M	J	J	A	S
CU	Induction Five modules			Exams			Exams	Reserch project				Oral exam
				Three modules			Group project					
MAGSA*	M I Soil and Land Survey and Evaluation		M II Soil and water quality and degradation	M IV Management of water resources		M V Practical work on soil and water management	M III Soil and water pollution and sanitation	M IV Irrigation evaluation and technology	Summer holidays		Optional subjects*	

*The second year of MAGSA begins in September with the optional subjects and ends up in February with the oral presentation of the MSc thesis.

The comparison and equivalences between the five MSc degrees are summarized in Table 1. The ECTS credits indicated for MAGSA subjects correspond to 10 contact hours lecturer/student; and about 15 hours of personal work. The credits of the CU MSc are not ECTS, since all modules have 10 credits but the scheduled teaching (contact hours) falls between 25 and 46 hours depending on the module. Therefore, in order to compare the MAGSA subjects and the CU modules, the CU contact hours have been divided by 10.

The lecturing language is Spanish for MAGSA, and English for CU MSc.

Table 1. Equivalences between the Master on Soil and Water Management (UdL) and the four MSc on environmental sciences of CU.

MASTER ON SOIL AND WATER MANAGEMENT, UNIVERSITAT DE LLEIDA			MASTER DEGREES OF CRANFIELD UNIVERSITY*			
Matèria	Subject	ECTS	Environmental engineering	Land Reclamation and Restoration	Environmental Water Management	Integrated Landscape Ecology
I Soil and Land Survey and Evaluation (Ob)	Soil science	2,5		Soil plant environment science 3.4 (p)	Soil plant environment science 2.7 (p)	
	Soil information systems	2,5		GIS fundamentals 4.2		GIS fundamentals 4.2
	Soil evaluation, management of protected areas and land use planning	4		Landscape ecology 3.8 (p)		Land resource planning 3.0 Landscape ecology 3.0 (p). Environmental resource survey 4.6 (p)
	Interactions soil-water-plant-atmosphere	3	Land engineering and water management 3.0 (p)	Soil plant environment science 3.4 (p) Land engineering and water management 3.8 (p)	Soil plant environment science 2.7 (p)	
II Soil and water quality and degradation (Ob)	Soil and water quality	3			Water quality monitoring 3.0	
	Soil degradation and rehabilitation processes	4	Soil erosion control for catchment management 3.0	Soil erosion control for catchment management 4.6		
	Soil ecology	2		Soil engineering, contaminant and nutrient management 3.9 (p)		
	Residue management and valorisation through the soil	3	Waste disposal and resource recovery 2.5 (p) Waste treatment processes 2.6 (p)			
III Soil and water pollution and sanitation (Ob)	Pollutant characteristics and effects	4	Pollution prevention and remediation technologies 3.0 (p)			
	Water treatment and reuse	4	Water and wastewater treatment and principles 3.0 Pollution prevention and remediation technologies 3.0 (p)			
	Polluted soils and sanitation techniques	4	Pollution prevention and remediation technologies 3.0 (p)			
IV Water and irrigation in semi-arid environments (Ob)	Management of water resources	6	Land engineering and water management 3.0 (p)	Land engineering and water management 3.8 (p)	Surface and groundwater hydrology 3.3 (p). Modelling hydrological systems 2.6 (p)	
	Irrigation evaluation and technology	6				
V Practical work on soil and water management (Ob)	Soil survey: elaboration, interpretation, evaluation	8	Group project	Group project	Group project	Group project. Aerial photography and digital photogrammetry 3.05 (p). Environmental resource survey 4.6 (p)
	Geological risks and environmental restoration	4				
MSc thesis		20	Individual project	Individual project	Individual project	Individual project
Watershed and river hydrology (Opt)	Hydromorphological and limnological processes	3,5			Surface and groundwater hydrology 3.3 (p). Modelling hydrological systems 2.6 (p)	
	Hydrological risks	3,5			Flood risk management 3.1	
	Conservation and restoration of aquatic ecosystems	3		Ecological restoration 3.3 (p)	Environmental management of rivers and wetlands 2.7	Aquatic ecosystems in the landscape 3.0 Ecological restoration (p)
Soils and Water in Rangeland Systems (Opt)	Evaluation and management of natural and forestry ecosystems	2		Landscape ecology 3.8 (p)		Landscape ecology 3.0 (p)
	Soil management in silvopastoral ecosystems	4		Ecological restoration 3.3 (p)		Ecological restoration 3.0 (p)
	Disturbances and rehabilitation of soils	4	Land engineering and water management 3.0 (p)	Land engineering and water management 3.8 (p)		
Soils and Water in Agro-systems (Opt)	Management of irrigation water	2				
	Soil management, fertilisation and environmental disturbances	4		Soil engineering, contaminant and nutrient management 3.9 (p)		
	Soil technology	4		Soil engineering, contaminant and nutrient management 3.9 (p)		
Courses of Cranfield University not included (totally nor partially) in the MAGSA.			Risk management and reliability engineering 2.7	Principles of sustainability 2.5	Policy design, appraisal and implementation 2.7	Image processing and analysis 3.0
			Process emissions and control 2.9		Research processes 1.5	

*the duration of each module is set at CU as 10 credits/module. The equivalence to ECTS has been established dividing the contact hours by 10. (p): partial coverage.

5. Paths to follow

The double master degree proposal consists of the substitution of some groups of subjects of MAGSA by any of the MSc at CU, according to the following table:

CU MSc	MAGSA Matèries
Land Reclamation and Restoration	Soils and Water in Rangeland Systems (10 ECTS, <u>optional</u>)
Integrated Landscape Ecology	MIXED Soils and Water in Rangeland Systems AND Watershed and river hydrology (10 ECTS, <u>optional</u>)
Environmental Water Management	Watershed and river hydrology (10 ECTS, optional)
Environmental engineering	Soil and water pollution and sanitation (12 ECTS, <u>compulsory</u>)

In three of the CU masters (**Land Reclamation and Restoration, Environmental Water Management, Integrated Landscape Ecology**), the first year will be followed in Lleida, where all the compulsory courses of the MAGSA (60 ECTS) will have to be passed. The second half year, which would correspond with the optional subjects and the MSc thesis, will be followed in Cranfield, where a deeper specialization will be acquired through the 1-year courses. This is possible because of the similarity of the optional subjects of MAGSA with the lecture modules of CU MSc's. The MSc thesis of the MAGSA (20 ECTS) would be covered by the individual project of CU MSc.

For the students that intend to present their MSc thesis at CU, the paths to follow depend on the CU – MSc to follow. For these three MSc the calendar would be:

	O	N	D	J	F	M	A	M	J	J	A	S
1 st year LLEIDA	M 1		M 2		M 4 (GRH)	M 5 (practicum)		M 3		M 4 (AR)	Summer holidays	
2n year CRANFIELD	Induction Five modules		Exams Three modules		Exams Group project		Research project				Oral exam	

In the case of the MSc in **Environmental Engineering**, the lecture modules are equivalent to the third compulsory module of the MAGSA, dealing with water and soil pollution and sanitation. The calendar for these students will have to be tailor-made, since they will have to follow the optional subjects in Lleida (during September) and therefore some overlapping could occur with the CU modules beginning in October:

2nd option beginning in Lleida:

	O	N	D	J	F	M	A	M	J	J	A	S
1 st year LLEIDA	M 1		M 2		M 4 (GRH)	M 5 (practicum)		(free)		M 4 (AR)	Summer holidays	Optional subjects
2n year CRANFIELD	Induction Five modules		Exams Three modules		Exams Group project		Research project				Oral exam	

6. Selection of candidates

The sending institution will conduct selection of those candidates that have the capacity of obtaining the double master degree among those students who are enrolled in the respective master degree. The language skills needed can be found here:

<http://www.cranfield.ac.uk/study/research-degrees/entry-requirements>.

The receiving institution can cancel the acceptance of the participating student if any of the following situations occur:

- When due to financial reasons or health problems, the continuation of studies proves difficult.
- The grades of the students do not achieve the requirements of the master degree of the institution.
- The student commits some action against the law or the rules of the institution.

7. Financial issues

The students participating in this agreement will benefit from the following financial conditions:

- Students in the program will pay the registration and administrative fees at their sending university, and will not pay for any of these issues (including subject registration, validation of previous studies, academic and service taxes) at the receiving university.
- Students participating in the program will pay the tax fixed by the Government for awarding the degree.
- Accommodation will be arranged by the receiving institution, paid by the student him/herself.
- Travel: the students themselves shall cover all travel expenses.
- Books and other teaching material including printing and copying expenses will be paid by the students themselves.
- The students participating in the program shall cover other everyday living expenses. Both institutions can use their own national funding for financing their own students.
- Students participating in this program are expected to carry health insurance, accident insurance at their own expense.

8. Additional issues

During the exchange period, the students will enjoy the same privileges and adhere to the same regulations as other students in the receiving institution (for example, matriculation). Students will participate in all evaluations/examinations in the courses they have signed up for at the receiving institution.

9. Exchange of grades

The grades will be given using the system in operation in CU and UdL respectively and in accordance with the regulations of the academic mobility programs.

10. For other requirements and regulations see: Inter-institutional agreement 2014-2015 between programme countries Cranfield University –UdL, signed 2013-14.



Erasmus+ Programme



**Key Action 1
- Mobility for learners and staff -
Higher Education Student and Staff Mobility**

**Inter-institutional agreement 2014-2015
between programme countries**

The institutions named below agree to cooperate for the exchange of students and/or staff in the context of the Erasmus+ programme. They commit to respect the quality requirements of the Erasmus Charter for Higher Education in all aspects related to the organisation and management of the mobility, in particular the recognition of the credits awarded to students by the partner institution.

A. Information about higher education institutions

Name of the institution (and department, where relevant)	Erasmus code	Contact details (email, phone)	Website (eg. of the course catalogue)
Cranfield University	UK CRANFIE01	<p>Institutional Co-ordinator: Linda Pearson, European Officer; Academic Services, Cranfield University, Bedfordshire, MK43, OAL, England Phone: +44 1234 754211 Fax : +44 12 34 752462 E-mail : l.d.pearson@cranfield.ac.uk</p> <p>Administrative Contact: Amy Brierley Academic Services, Cranfield University, Bedfordshire, MK43, OAL, England Phone : +44 1234 754179 Fax : +44 12 34 752462 Email: a.k.brierley@cranfield.ac.uk</p>	<p>www.cranfield.ac.uk http://www.cranfield.ac.uk/study/postgraduate-degrees/full-time-courses/az-of-postgraduate-degrees.html</p>
Universitat de Lleida (UdL)	E LLEIDA01	Josep M. MARTI RIBELLES Oficina de Relacions	http://www.udl.cat/serveis/ori/estudiantat_estranger/eng/erasmus.html

		Internacionals Carrer de Jaume II, 67 E-25001 LLEIDA (Catalonia, Spain) tel.: +34 973 003530 fax: +34 973 003531 ori@int.udl.cat	Bachelor: http://www.udl.cat/en/studies/studies_all.html Master: http://www.udl.cat/estudis/poficials_eng.html
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B. Mobility numbers per academic year

The partners commit to amend the table below in case of changes in the mobility data by no later than the end of November in the preceding academic year.

FROM	TO	Subject area code	Subject area name	Study cycle	Number of student mobility periods	
					Student Mobility for Studies	Student Mobility for Traineeships
UK CRANFIE01	E LLEIDA01	061 (48)	Information and Communication Technologies	2 nd	1 x 12 months	
E LLEIDA01	UK CRANFIE01	061 (48)	Information and Communication Technologies	2 nd	1 x 12 months	
E LLEIDA01	UK CRANFIE01	08 (62) / 051 (42)	Agriculture, forestry and veterinary / Biological and related sciences	2 nd	4 x 12 months	
UK CRANFIE01	E LLEIDA01	08 (62) / 051 (42)	Agriculture, forestry and veterinary / Biological and related sciences	2 nd	4 x 12 months	
E LLEIDA01	UK CRANFIE01	52	Engineering and Engineering trades	2 nd	4 x 12 months	
UK CRANFIE01	E LLEIDA01	52	Engineering and Engineering trades	2 nd	4 x 12 months	

FROM	TO	Subject area code	Subject area name	Number of staff mobility periods	
				Staff Mobility for Teaching	Staff Mobility for Training
UK	E LLEIDA01	08 (62) /	Agriculture, forestry and veterinary / Biological and related	2 x 1 week	

CRANFIE01		051 (42)	sciences		
E LLEIDA01	UK CRANFIE01	08 (62) / 051 (42)	Agriculture, forestry and veterinary / Biological and related sciences	2 x 1 week	
UK CRANFIE01	E LLEIDA01	061 (48) / 07 (5)	Information and Communication Technologies / Engineering	1 x 1 week	
E LLEIDA01	UK CRANFIE01	061 (48)	Information and Communication Technologies / Engineering	1 x 1 week	

C. Recommended language skills

The sending institution, following agreement with the receiving institution, is responsible for providing support to its nominated candidates so that they can have the recommended language skills at the start of the study or teaching period:

Receiving institution	Optional Subject area	Language of instruction 1	Language of instruction 2	Language of instruction level*	
				Recommended	Required
				Student Mobility for Studies [Minimum recommended level: B1]	Staff Mobility for Teaching [Minimum recommended level: B2]
UKCRANFIED1		EN		English language entry requirements: http://www.cranfield.ac.uk/study/research-degrees/entry-requirements/	C2
E LLEIDA01	48 Computer Sc.	Spanish & Catalan (*)	English (courses, practical placements and final thesis).	Spanish (or Catalan): B1 recommended (A2 for speakers of other romance languages). or English: B1 recommended	B2

For more details on the language of instruction recommendations, see the course catalogue of each institution [Links provided on the first page].

(*) At the University of Lleida courses are taught in Catalan or Spanish, some in English. The instruction language of each course can be checked by browsing the academic guide of each academic faculty (http://www.udl.cat/en/studies/studies_all.html) or by asking the correspondent mobility coordinator (http://www.udl.cat/serveis/ori/estudiantat_estranger/eng/infoeng/department.html). The offer of courses in English can be checked at http://www.udl.es/serveis/ori/estudiantat_estranger/eng/infoeng/teaching.html.

Regardless of the language the professor uses in class, the student has the right to address the professor, hand in projects and take exams in any of the three official teaching languages at the UdL: Catalan, Spanish or English.

D. Additional requirements

Students and staff with disabilities

The University of Lleida, by means of the service UdLxTothom (UdL for everybody), provides support tools and adaptation measures to students and staff with any kind of disability. If any student or member of staff has any special need, he will need to communicate it to the International Relations Office of the University of Lleida so that the facility UdLxTothom is able to arrange all the necessary measures to ensure a convenient stay. Website of the service UdLxTothom: <http://www.udl.cat/serveis/seu/UdLxtothom.html>

UKCRANFIE01

In order for exchange students to be admitted at the receiving institution they should already be studying at Master level.

Please refer to: <http://www.cranfield.ac.uk/study/studying-at-cranfield/life-at-cranfield/health-and-welfare/> for information on welcoming students and staff with disabilities.

E. Calendar

1. Applications/information on nominated students must reach the receiving institution by:

Receiving institution	Autumn term	Spring term
UKCRANFIE01	Master of Science Start date - the first Monday in October – no deadline for applications but suggestion is by the end of April for courses starting in October. For courses beginning in March a suggested application date would be October.	Project Students Any time throughout the year
E LLEIDA01	Nomination deadline: 15/06 Application deadline: 01/07	Nomination deadline: 15/11 Application deadline: 01/12

2. The receiving institution will send its decision within 2 weeks.
3. A Transcript of Records will be issued by the receiving institution no later than 6 weeks after the assessment period has finished at the receiving HEI.
4. Termination of the agreement

This inter-institutional agreement may be terminated by mutual consent. In the event of unilateral termination, a notice of at least one academic year should be given. This means that a unilateral decision to discontinue the exchanges notified to the other party by 1 September 20XX will only take effect as of 1 September 20XX+1.

Neither the European Commission nor the National Agencies can be held responsible in case of a conflict.

UKCRANFIE01

2. The receiving institution will normally send its decision within 6 weeks.
3. A Transcript of Records will normally be issued by the receiving institution 5 weeks after the assessment period has finished at the receiving HEI. (Cranfield University defines the end of the assessment period as the meeting of the examination board to determine a final result.)

F. Information

1. Grading systems of the institutions

It is recommended that receiving institutions provide the statistical distribution of grades according to the descriptions in the ECTS users' guide¹. A link to a webpage can be enough. The table will facilitate the interpretation of each grade awarded to students and will facilitate

¹ http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm

the credit transfer by the sending institution.

Institution	Information
UK CRANFIE01	<p>There is no single national credit system in place in England. At Cranfield University, each taught Masters programme is worth at least 200 credit points, on the basis of 10 notional learning hours being equal to 1 credit point. The basis for earning 1 credit point at Cranfield is the same as that used in most other UK higher education institutions. However, to earn a Master's degree most UK higher education institutions require students to earn only 180 credits (based on 1800 notional learning hours) compared to the 200 or more credits required by Cranfield University.</p> <p>It is generally recognized that 200 UK credit points is equal to 100 ECTS.</p> <p>Percentage marks are given for all elements of the Master and qualitative descriptors can be viewed at: http://www.cranfield.ac.uk/fragments/generic-cascade-fragments/qualitative-criteria.pdf</p>
E LLEIDA01	http://www.udl.cat/serveis/ori/estudiantat_estranqer/eng/infoeng/evaluation_system.html

2. Visa

The sending and receiving institutions will provide assistance, when required, in securing visas for incoming and outbound mobile participants, according to the requirements of the Erasmus Charter for Higher Education.

Information and assistance can be provided by the following contact points and information sources:

Institution	Contact details (email, phone)	Website for information
UK CRANFIE01	UKCRANFIE01	internationaloffice@cranfield.ac.uk
E LLEIDA01	Joan Carles MERCADER Tel.: +34 973 00 35 34 Paula OBREGÓN Tel.: +34 973 00 27 73 incoming@int.udl.cat	http://www.udl.cat/serveis/ori/estudiantat_estranqer/eng/infoeng/entry.html

3. Insurance

The sending and receiving institutions will provide assistance in obtaining insurance for incoming and outbound mobile participants, according to the requirements of the Erasmus Charter for Higher Education.

The receiving institution will inform mobile participants of cases in which insurance cover is not automatically provided. Information and assistance can be provided by the following contact points and information sources:

Institution	Contact details (email, phone)	Website for information
UKCRANFIE01	Institutional Coordinator – as above	
E LLEIDA01	Joan Carles MERCADER Tel.: +34 973 00 35 34 Paula OBREGÓN Tel.: +34 973 00 27 73 incoming@int.udl.cat	http://www.udl.cat/serveis/ori/estudiantat_estranger/eng/infoeng/insurance.html



4. Housing

The receiving institution will guide incoming mobile participants in finding accommodation, according to the requirements of the Erasmus Charter for Higher Education.

Information and assistance can be provided by the following persons and information sources:

Institution	Contact details (email, phone)	Website for information
UKCRANFIE01	oncampus@cranfield.ac.uk	http://www.cranfield.ac.uk/study/studying-at-cranfield/life-at-cranfield
E LLEIDA01	Joan Carles MERCADER Tel.: +34 973 00 35 34 Paula OBREGÓN Tel.: +34 973 00 27 73 incoming@int.udl.cat	http://www.udl.cat/serveis/ori/estudiantat_estranger/eng/infoeng/accommodation.html

G. SIGNATURES OF THE INSTITUTIONS (legal representatives)

Institution	Name, function	Date	Signature
UKCRANFIE01	Professor C M Friend Pro-Vice Chancellor for Regional and International Affairs	17 8 JUN 2014	 
E LLEIDA01	Astrid BALLESTA REMY, Vicerectora de Relacions Internacionals i Cooperació	17/10/2013	Per delegació, la vicerectora de Relacions Internacionals i Cooperació, per resolució de 29.05.2012 publicada al DOGC 6151 de 18.06.2012 