

Final curriculum design for the Master of Science Degree in Sustainable Cities and Communities

FIRST SEMESTER – FIRST YEAR

UNIVERSITY OF COIMBRA				
<i>Curricular Unit</i>	Type	ECTS	Semester	University
Characterization and Optimization of the Building's Envelope	Optative	6	1st	UC
Energy conversion, production and storage	Optative	6	1st	UC
Industrial Ecology	Optative	6	1st	UC
Energy Economics and Energy Markets	Optative	6	1st	UC
Fundamentals of Operational Research	Optative	6	1st	UC
Energy Management in Industry	Optative	6	1st	UC
Energy Management in Buildings	Optative	6	1st	UC
Sustainable Mobility	Optative	6	1st	UC
Indoor Environment Quality	Optative	6	1st	UC
Energy Simulation of Buildings	Optative	6	1st	UC
Environmental Economics	Optative	6	1st	UC
Energy planning and sustainable development	Optative	6	1st	UC
Buildings and Environment	Optative	6	1st	UC
Space organization and environment	Optative	6	1st	UC
Renewable energy systems	Optative	6	1st	UC
Building technology and rehabilitation for façades and roofs	Optative	6	1st	UC
Legal aspects of urban sustainability	Optative	6	1st	UC
Research Methodologies	Mandatory	6	1st	UC/UP/UT



Seminar I	Mandatory	6	1st	UC/UP/UT
Total available credits / sem I		114		

NOTE : Students should be enrolled in the 2 Mandatory courses plus 3 Optative Courses (30 ECTS)

SECOND SEMESTER - FIRST YEAR

UNIVERSITY OF POITIERS / UNIVERSITY OF TURKU				
<i>Curricular Unit</i>	Type	ECTS	Semester	University
Water Treatment Engineering	Optative	6	2nd	UP
Storm Water Management	Optative	6	2nd	UP
Smart Buildings	Optative	6	2nd	UP
Energy management	Optative	6	2nd	UP
Social Entrepreneurship	Optative	6	2nd	UT
Cultural Sustainability	Optative	6	2nd	UT
Marine and Coastal Spatial Planning	Optative	6	2nd	UT
21stCentury Wicked Challenges	Optative	6	2nd	UT
Participatory Scenario Planning	Optative	6	2nd	UT
Seminar II	Mandatory	6	2nd	UT/UP
Innovation and Entrepreneurship	Mandatory	6	2nd	UT/UP/UC
Total available credits / sem II		66		

NOTE : Students should be enrolled in the 2 Mandatory courses plus 3 Optative Courses (30 ECTS)

THIRD SEMESTER – SECOND YEAR

UNIVERSITY OF POITIERS / UNIVERSITY OF TURKU				
<i>Curricular Unit</i>	Type	ECTS	Semester	University
Energy assessment and diagnostics	Optative	6	3rd	UP
Societal and environmental transitions	Optative	6	3rd	UP
Energy sources and sustainable development	Optative	6	3rd	UP
Thermal Science for Buildings	Optative	6	3rd	UP
Management and enhancement of ecosystems	Optative	6	3rd	UP
Enhancement of natural spaces	Optative	6	3rd	UP
Waste management and recovery	Optative	6	3rd	UP
Geospatial Data Management and Visualization	Optative	6	3rd	UT
Urban security and surveillance	Optative	6	3rd	UT
global change	Optative	6	3rd	UT
Innovation and Entrepreneurship Case Study,	Optative	6	3rd	UT
Applied Biogeography	Optative	6	3rd	UT
Spatial Biodiversity Informatics and Landscape Ecology	Optative	6	3rd	UT
Scientific Writing and Communication	Mandatory	6	3rd	UC/UP/UT
Dissertation project	Mandatory	6	3rd	UC/UP/UT
Total available credits / sem III		90		

NOTE : Students should be enrolled in the 2 Mandatory courses plus 3 Optative Courses (30 ECTS)



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FOURTH SEMESTER - SECOND YEAR

Univ Coimbra / Univ Poitiers / Univ Turku				
<i>Curricular Unit</i>	Type	ECTS	Semester	University
Dissertation	Mandatory	30	4th	
Total credits / sem IV		30		