
Ano Letivo 2022-23

Unidade Curricular INTEGRATED PROJECT IN GERMANY - WORLD OF WORK 2

Cursos ECOHIDROLOGIA APLICADA - Erasmus Mundus (2.º Ciclo)

Unidade Orgânica Faculdade de Ciências e Tecnologia

Código da Unidade Curricular 19311007

Área Científica TECNOLOGIAS DE PROTEÇÃO AMBIENTAL

Sigla

Código CNAEF (3 dígitos) 851

**Contributo para os Objetivos de
Desenvolvimento Sustentável - 6 9 11
ODS (Indicar até 3 objetivos)**

Línguas de Aprendizagem English

Modalidade de ensino

presencial e online

Docente Responsável

Luís Manuel Zambujal Chícharo

DOCENTE	TIPO DE AULA	TURMAS	TOTAL HORAS DE CONTACTO (*)
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* Para turmas lecionadas conjuntamente, apenas é contabilizada a carga horária de uma delas.

ANO	PERÍODO DE FUNCIONAMENTO*	HORAS DE CONTACTO	HORAS TOTAIS DE TRABALHO	ECTS
1º	S2	3TP; 5S; 16OT	78	3

* A-Anual;S-Semestral;Q-Quadrimestral;T-Trimestral

Precedências

Sem precedências

Conhecimentos Prévios recomendados

not required

Objetivos de aprendizagem (conhecimentos, aptidões e competências)

The objective of the course is to provide progressive learning and training regarding the reality of the world of work in the thematic area of ecohydrology, water engineering and water management.

Conteúdos programáticos

- 1 ? identification of practical solutions for stakeholders real water ecosystem situations, by the stakeholders
- 2 ? develop, conceptually, the solutions
- 3 ? Present and discuss the proposals with the stakeholders

Metodologias de ensino (avaliação incluída)

The course will be based on field visits and meetings with stakeholders to select the topics to be developed and on tutorial classes to support the development of the students projects

Evaluation:

1. A group work written with individual presentation on practical project
 2. A final written exam if group work evaluation is below 10/20 points
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Bibliografia principal

Chicharo, L. Wagner, I., Chicharo, M. A Lapsinka, M. Zalewski, M. (2009) Practical experiments guide for Ecohydrology (Eds.Chicharo et al.). UNESCO Manual ISBN: 978-989-20-1702-0. Faro, 121 pp

Zalewski M, Wagner-Lotkowska I. & Robarts D. R. (eds). 2004. Integrated Watershed Management ? Ecohydrology and Phytotechnology-Manual. UNESCO IHP, UNEP IETC.246pp.;http://www.unep.or.jp/ietc/Publications/Water_Sanitation/integrated_watershed_mgmt_manual

Wolanski, E., L. Chicharo, M.A. Chicharo (2008) Estuarine Ecohydrology. In Sven Erik Jørgensen and Brian D. Fath (Editor-in-Chief), Ecological Engineering. Vol. [2] of Encyclopedia of Ecology, 5 vols. pp. [1413-1422] Oxford: Elseier.

Academic Year 2022-23

Course unit

Courses Applied Ecohydrology - Erasmus Mundus (2.º Cycle)

Faculty / School FACULTY OF SCIENCES AND TECHNOLOGY

Main Scientific Area

Acronym

CNAEF code (3 digits) 851

Contribution to Sustainable Development Goals - SGD (Designate up to 3 objectives) 6 9 11

Language of instruction English

Teaching/Learning modality presencial and online

Coordinating teacher Luís Manuel Zambujal Chícharo

Teaching staff	Type	Classes	Hours (*)
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* For classes taught jointly, it is only accounted the workload of one.

Contact hours	T	TP	PL	TC	S	E	OT	O	Total
	0	3	0	0	5	0	16	0	78

T - Theoretical; TP - Theoretical and practical ; PL - Practical and laboratorial; TC - Field Work; S - Seminar; E - Training; OT - Tutorial; O - Other

Pre-requisites

no pre-requisites

Prior knowledge and skills

not required

The students intended learning outcomes (knowledge, skills and competences)

The objective of the course is to provide progressive learning and training regarding the reality of the world of work in the thematic area of ecohydrology, water engineering and water management.

Syllabus

- 1 ? identification of practical solutions for stakeholders real water ecosystem situations, by the stakeholders
- 2 ? develop, conceptually, the solutions
- 3 ? Present and discuss the proposals with the stakeholders

Teaching methodologies (including evaluation)

The teaching methodologies aims to enable and support students to understand the concepts set out in the program objectives and in developing the conceptual project. Audiovisual resources will be used, based on the power point presentation. The field work will serve to visit the stakeholders institutions and learn, in situ their realities. Seminar will be used to students presentations and also for bringing experts in the field for lectures.

Evaluation:

1. A group work written with individual presentation on practical project
 2. A final written exam if group work evaluation is below 10/20 points
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Main Bibliography

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