

66708 - Evaluation of environmental effects and restoration

Syllabus Information

Academic year: 2024/25

Subject: 66708 - Evaluation of environmental effects and restoration

Faculty / School: 103 - Facultad de Filosofía y Letras

Degree: 328 - Master's in Land and Environmental Planning

ECTS: 6.0

Year: 1

Semester: Annual

Subject type: Optional

Module:

1. General information

In the context of territorial and environmental planning, the principles and procedures of environmental impact and the necessary and demanded restoration of altered natural systems constitute fundamental work axes in the administration, research centres and public and private companies.

The objectives of the subject are:

- To provide conceptual and normative bases on impact assessment and environmental restoration.
- To manage methods and techniques for identification, characterization and valuation of environmental impacts.
- To manage methods and techniques to establish restoration strategies and measures and to evaluate and monitor results. It is a complex area of work, in which examples and case studies are key.

These approaches are aligned with the following SDGs: 6 (Objectives 6.3, 6.4, 6.5, 6.6), 9 (9.1, 9.4, 9.5, 9.A, 9.B), 13 (13.1), 14 (14.1, 14.2, 14.5) and 15 (15.1, 15.2, 15.3, 15.4, 15.5, 15.8, 15.9).

2. Learning results

Upon completion of this subject, the student will be able to:

- Indicate, analyse and apply the regulations related to environmental impacts and environmental restoration.
- Describe, compare, assess and apply different methodologies for impact identification and assessment.
- Design and prepare environmental impact studies.
- Identify and value the complexity and diversity of natural systems and the elements that conform them, as a basis for the environmental recovery of their structure and functions.
- Assess environmental restoration and rehabilitation projects and propose strategies and techniques for the improvement of different natural systems and for the correction of impacts and pressures in specific cases.

Design and develop environmental restoration projects

3. Syllabus

Theoretical part:

1. Introduction and general concepts on environmental impact.
2. Legal and administrative framework in Environmental Impact Assessment.
3. Methodology for the preparation of environmental impact studies.
4. Conceptual, ecological and normative bases of environmental restoration.
5. Methodology of restoration projects.
6. Monitoring and evaluation of restoration projects.

Practical part:

- Legislation comments.
- Access to servers with environmental information.
- Commentary on examples of environmental impact studies.
- Design and preparation of various sections of an impact study.
- Commentary on examples of restoration projects.

Design of a valuation system for restoration actions

4. Academic activities

The subject combines theoretical parts with case and practical examples. The practical load strengthens analysis and diagnosis tools and leads to team work. Specific and complex cases of various topics and application results are presented, some of them visited during field trips. Theoretical and practical sessions are interspersed following a common thread consistent with the two main blocks: impact and restoration. This sequential system allows the development of personal study and teamwork. Therefore, theoretical and practical classes, field trips, personal study and assessment activities are carried out.

5. Assessment system

FIRST CALL

a) *Continuous assessment system*

Test 1: Preparation of an environmental impact study (50%). It will refer to a project proposed by the teacher and will be carried out individually. Assessment criteria: variety and adequacy of the sources of information used to prepare the environmental inventory, adequacy of the data included in the inventory, suitability and correctness in the application of the methods used to identify and evaluate impacts, formal presentation and wording.

Test 2: Design and application of a valuation system for environmental restoration actions (50%). Interdisciplinary teamwork that includes the selection of cases, which can be chosen among those visited during field trips. Assessment criteria: degree of active participation in the preparation of the evaluation form, accuracy and correctness in the application of the form to the selected cases, good criteria for the selection of the cases to be studied, conceptual accuracy and clarity of written and oral presentation.

b) *Global assessment test*

Written exam (20%), delivery of an environmental impact study (40%) and delivery of a paper on the design and application of a restoration valuation system (40%).

SECOND CALL

Global assessment test.

Identical to that of the first call.

6. Sustainable Development Goals

9 - Industry, Innovation and Infrastructure

13 - Climate Action

15 - Life on Land