Universidad de Navarra

Management of natural and protected areas

Teaching guide 2026-27

INTRODUCTION

Course description:

This course will discuss nature heritage conservation challenges, from the global to the local level, showing the increasing complexity and uncertainties that have developed since the 1970s, when human activities overcame the biocapacity of the Earth. Some of the main policies for nature conservation will be presented, from conventions to strategies, focussing on natural protected and conserved areas. The history of conserved and protected areas, including their major components will be examined. The main planning, management, monitoring and evaluation options will also be presented. The relation between territorial planning, ecological networks, systems of protected areas, green infrastructures and individual protected sites will be showed. The significance of governance in relation with social justice and equity will be presented. Finally, recent trends, challenges and opportunities will be discussed in the context of exponentially increasing threats for nature conservation. Examples will combine international experiences, with Spanish, regional and local case studies.

- **Degree:** Environmental Sciences, Degree in Biology&Environmental Sciences
- **Module in the Degree Program**: Module II. Topic 2: Basis of Environmental Science.
- **Number of credits:** 6 ECTS
- **Year:** fourth (Environmental Sciences) / fifth (Biology&Environmental Sciences).
- **Type of course:** Required
- **Instructors**: Dr. D. Josep Maria Mallarach
- **Language:** English
- **Department:** Environmental Biology

LEARNING OUTCOMES (Competencies)

Basic & General competences:

CG2 -Pensar de forma integrada y abordar los problemas desde diferentes perspectivas.

CG3 - Tener razonamiento crítico

CG4 - Trabajar en equipo.

CG5 - Tener sentido de responsabilidad hacia el medio ambiente y el ecosistema

CG6 - Gestionar la información

CB2 - Que los estudiantes sepan aplicar sus conocimientos a su trabajo o vocación de una forma profesional y posean las competencias que suelen demostrarse por medio de la elaboración y defensa de argumentos y la resolución de problemas dentro de su área de estudio

CB3 - Que los estudiantes tengan la capacidad de reunir e interpretar datos relevantes (normalmente dentro de su área de estudio) para emitir juicios que incluyan una reflexión sobre temas relevantes de índole social, científica o ética

CB4 - Que los estudiantes puedan transmitir información, ideas, problemas y soluciones a un público tanto especializado como no especializadoCB5 - Que los estudiantes hayan desarrollado aquellas habilidades de aprendizaje necesarias para emprender estudios posteriores con un alto grado de autonomía.

Specific competences:

CE30 - Gestionar espacios naturales, rurales, urbanos y litorales

CE31 - Planificar la ordenación integrada del territorio incluyendo el diseño y ejecución de planes de desarrollo rural y urbano

CE5 - Interpretar los resultados experimentales y de campo

CE9 - Conocer las características y los procesos generales de los principales ecosistemas y hábitats

PROGRAM

0. Presentation of scope, topics and materials

1) Conservation state and trends: Global , Europe and Spain on nature: biodiversity, geodiversity, soils, water, climate

2) Nature Conservation Paradigms. Conserved areas before WW2

3) Conservation approaches and Protected Areas post-WW2. Re-emergence of cultural, spiritual values after 2003 WPC.

4) Nature Conservation Policies & Unexpected Sectoral Impacts. Policy frameworks: Global, European Union, Spain / Regional strategies & plans.

5) Ecological Connectivity Ecological networks & climate change adaptation strategies (13) Protected Area Planning & Planning cycles, zoning, and management plans.

6) Protected Area Planning

7) Protected Area Management.

8) Governance, Rights, and Stewardship. Types: Shared governance, Private conservation, Indigenous and ICCAs / SNS diversity.

9) Protected Area Evaluation: Efficacy, Efficiency, Equity, inter-generational justice.

10) Hope in selected trends, by Integral Ecology framework.

EDUCATIONAL ACTIVITIES

In-class-related activities:

- **Lectures:**
  - Lectures are given by the professor on the themes indicated in the syllabus with the help of the blackboard, power point presentations, videos and animation movies. The professor will post on ADI the power point presentation, and some recommendations for further reading.
- **Seminars:**
  - Group review of the assignments proposed by the professor in connection with the themes considered in the syllabus, and subsequent group debate.
- **Personal work:**
  - Students must understand themes covered early in the course to be able to comprehend information presented later in the course, and will have to be able to integrate material learnt throughout the course. Therefore, it is important that they do not fall behind and try to set aside

regular times outside of class to work on the course material on a daily basis.
- Students must complete simple assignments proposed by the professor on a number of topics in connection to the syllabus, and the subsequent in-class discussion of each of which will serve as an introduction to a lecture session. Being familiar with topics beforehand will allow students to get the most out of the lecture.
- Students should conduct personal study using the professor's notes, notes taken in lectures and recommended books if needed.
- Students have to prepare oral presentations in English.

- The in-class-related activities account for a total of 3 ECTS.

Field teaching activities:

- There will be a number of field lectures organized as fieldtrips, integrated in the E&LP.
- These focus on case studies at several locations, and rely on the student's first-hand experience as a means to address some of the themes considered in the syllabus. They will also be supported and expand the classroom teaching activities. The activities include outdoor lectures, presentations, seminars, group activities, field labs, hikes, and guided visits. Notes, materials & references for reference and further reading will be provided whenever required.
- The field teaching activities account for a total of 3 ECTS.

ASSESSMENT

There will be several class assignments, one workshops, a personal / team presentation, plus a final exam. Exams questions will be drawn directly from lectures, class discussions and workshops.

Criteria to pass the course

- Students must score 5 points or more in the final exam in order to pass the course.
- Students whose final grade is 5 points or more will pass the course.
- Students whose final grade is below 5 points will not pass the course and will be graded as *Suspenso* .
- Students who do not take the final exam will not pass the course and will be graded as *No presentado*.

Exams review

- Students will be able to review the exams in an interview with the professor, after publication of the grades, in a day and place that will be indicated.

OFFICE HOURS

Dr. Josep Maria Mallarach (mallarach@silene.ong)

- Please ask the teacher for an appointment by email

BIBLIOGRAFÍA

Universidad de Navarra

GLOBAL TRENDS ON NATURE - ASSESSMENTS, CAUSES AND ETHICAL ISSUES

BOOKS & REPORTS

- Barnosky, A. D. et al (2012). Approaching a state shift in Earth's biosphere. *Nature* 486. Find in the Library
- Meadows, D. et al. (1992). Beyond the limits. Confronting collape, envisioning a sustainable future
- Kendall, H. et al. (1992). World Scientists' Warning to Humanity.
- Ripple, W. J. et al. (2017). World Scientists' Warning to Humanitiy: A Second Notice. *Bioscience*. Find in the Library
- Keeping Track of Our Changing Environment # From Rio to Rio +20 (1992#2012). (2012). *Environmental Development*, Find in the Library
- International Pannel on Climate Change (2019) Assessment Report
- Almond, R. E. A., Grooten M., & Petersen, T. (Eds). (2021). Living Planet Report - 2020: Bending the curve of biodiversity loss. *American Bar Association*. Find in the Library

VIDEO DOCUMENTARIES

- Home: https://www.youtube.com/watch?v=jqxENMKaeCU (notice suggested technical solutions, all of them related to sponsors).
- La Sal de la Tierra: https://www.youtube.com/watch?v=nbNAXC8kqT0
- Food Fight: https://www.youtube.com/watch?v=5RwIWGkMxrE
- https://www.silene.ong/en/documentation-centre/videographers/the-overview-effect

HISTORY OF PROTECTED & CONSERVED AREAS - USA & EUROPE

- S. Casado (1997) Los primeros pasos de la ecología en España: https://www.mapa.gob.es/ministerio/pags/biblioteca/fondo/pdf/15850_all.pdf
- EEA (2012). Protected Areas in Europe – An Overview: https://www.eea.europa.eu/publications/protected-areas-in-europe-2012
- Criteris i mètodes d'avaluació del patrimoni natural: https://www.gencat.cat/mediamb/publicacions/monografies/DQMA2_criteris_metodes_avaluacio.pdf

CONSERVATION POLICIES

- Kate Raworth. Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist (Chelsea Green, 2017)
- CONSERVATION POLICIES IN SPAIN: Ministerio para la Transición Ecológica – Conservación de la Biodiversidad https://www.miteco.gob.es/en/biodiversidad
- Strategy for Natural Heritage and Biodiversity
- Conservation in Catalonia - 2018-30: http://mediambient.gencat.cat/web/.content/home/ambits_dactuacio/patrimoni_natural/estrategia_patrimoni_biodiversitat/Resum_ESNATURA_CA.pdf
- Marine Strategy of Catalonia 2030 (2018): http://agricultura.gencat.cat/web/.content/08-pesca/politicamaritima/enllacos-documents/fitxers-binaris/EMC-2030-pla-2018-2021_v.2018.pdf
- NAVARRA POLICIES FOR NATURE CONSERVATION: http://www.navarra.es/home_es/Navarra/Asi+es+Navarra/Naturaleza/Politicas+de+conservacion.htm
- Información pública del DF Plan de Conservación y Recuperación de las Aves Esteparias de Navarra: https://participa.navarra.es/processes/Proyecto-decreto-foral-plan-esteparias
- BIODIVERSITY AND GREEN AREAS STRATEGIC PLAN FOR BARCELONA 2013-2020: https://ajuntament.barcelona.cat/ecologiaurbana/ca/que-fem-i-per-que/ciutat-verda-i-biodiversitat/plaverd-i-la-biodiversitat

PROTECTED AREA PLANNING: SYSTEMS AND AREAS

Suggested links

- EUROPARC-España: https://www.redeuroparc.org/publicaciones/serietecnica

- Manual 13. Las áreas protegidas en el contexto del cambio global: incorporación de la adaptación al cambio climático en la planificación y gestión
- Manual 10. Patrimonio inmaterial: valores culturales y espirituales
- Manual 9. Guía del Estándar de calidad en la gestión para la conservación en espacios protegidos
- Manual 8. Herramientas para la evaluación de las áreas protegidas. Modelo de memoria de gestión
- Manual 7. Planificar para gestionar los espacios naturales protegidos
- Manual 2. Diseño de planes de seguimiento en espacios naturales protegidos
- Manual 1. Conceptos de uso público en los espacios naturales protegido
- EUROPARC-España - Anuario 2018: https://www.redeuroparc.org/system/files/shared/Publicaciones/Anuario_2018/anuario2018.pdf

GOVERNANCE AND MANAGEMENT

- Borrini-Feyerabend, G., N. Dudley, T. Jaeger, B. Lassen, N. Pathak Broome, A. Phillips and T. Sandwith (2013). Governance of Protected Areas: From understanding to action. Best Practice Protected Area Guidelines Series No. 20, Gland, Switzerland: IUCN. xvi + 124pp.
- ICCA Consortium (2019) Conserving territories of life. Documentary 20 minutes. https://www.silene.ong/centre-de-documentacio/conserving-territories-of-life
- Manual 13. Las áreas protegidas en el contexto del cambio global: incorporación de la adaptación al cambio climático en la planificación y gestión
- Manual 10. Patrimonio inmaterial: valores culturales y espirituales
- Manual 9. Guía del Estándar de calidad en la gestión para la conservación en espacios protegidos. Herramientas para la comunicación y la participación social en la gestión de la red Natura 2000
- Manual 1. Conceptos de uso público en los espacios naturales protegido
- The Gaia Foundation (2010). Reviving our culture, mapping our future. Documentary. https://www.silene.ong/centre-de-documentacio/reviving-our-culture-mapping-ourfuture.

FIELDTRIPS

- **STORYMAPS (PID-165)**: E&LP CALIFORNIA FIELD TRIP