

**COURSE DATA****Data Subject**

|                      |                           |
|----------------------|---------------------------|
| <b>Code</b>          | 33112                     |
| <b>Name</b>          | Protected area management |
| <b>Cycle</b>         | Grade                     |
| <b>ECTS Credits</b>  | 4.5                       |
| <b>Academic year</b> | 2021 - 2022               |

**Study (s)**

| <b>Degree</b>                           | <b>Center</b>                  | <b>Acad. year</b> | <b>Period</b> |
|-----------------------------------------|--------------------------------|-------------------|---------------|
| 1104 - Degree in Environmental Sciences | Faculty of Biological Sciences | 4                 | First term    |

**Subject-matter**

| <b>Degree</b>                           | <b>Subject-matter</b>               | <b>Character</b> |
|-----------------------------------------|-------------------------------------|------------------|
| 1104 - Degree in Environmental Sciences | 180 - Management of protected areas | Optional         |

**Coordination**

| <b>Name</b>                    | <b>Department</b>              |
|--------------------------------|--------------------------------|
| BARBA CAMPOS, EMILIO           | 275 - Microbiology and Ecology |
| RUIZ SANCHEZ, FRANCISCO JAVIER | 200 - Geology                  |

**SUMMARY**

Between the late twentieth century and so far the XXI is happening one of the biggest changes in land use and the marine environment: the declaration of protected areas. In just over 40 years, has grown from a few hundred spaces formally declared protected and distributed more than 100,000 worldwide. This process also includes the recognition of areas that have been preserved by local communities to protect natural and cultural values since ancient times. The agreement that the protection of areas of interest is one of the most important tools for conserving biodiversity in a rapidly developing world is almost universal.

Protected areas incorporate a wide range of places, from those established and managed by governments, those managed by indigenous communities, NGOs, private companies and individuals. Protected areas are essential for conserving biodiversity and associated cultural values, and to safeguard the variety of landscapes, both for its own intrinsic value, for the multiple benefits they provide to humans.

The number of protected areas continue to grow throughout this century, and likewise grow the need for their effective management. Declared a protected area does not guarantee that the values that contains or



provides benefits that are maintained in the long term. Protected areas must be actively managed to achieve and maintain the objectives for which they were declared. Plants, animals, landscapes, marine, etc., face numerous threats to their health and integrity. You need to understand and deal effectively with these threats, including development processes unsustainable exploitation of resources projects, introduction of exotic species, or climate change. It is also imperative to take into account the needs, rights and responsibilities of local communities. Tourism should also be addressed in a safe and sustainable.

The course "Management of Protected Areas" is taught in the fourth year of the Degree of Environmental Sciences, within the Module XI "Elective Courses", in Block Thematic Assessment and Management of the Natural, and consists of 4.5 credits. It will be addressed in an integrated manner all aspects relevant to the management of protected areas, in accordance with the laws and regulations in each case.

The course contents are structured in 2 blocks with a total of 20 subjects, and related practices. In the first block will set the overall context in which it operates management, from the socioeconomic aspects related to the good governance of protected areas. The second part will deal with all the points of interest, with the depth possible by limited time. So, will from aspects related to the establishment of protected areas to managing personal and economic, to the very management of natural and cultural heritage and tourism.

## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

Be pursuing or have completed the materials of modules "Environmental Technology", "Management and Environmental Quality" and "social sciences, economics and law", and have passed a minimum of 120 ECTS credits.

## OUTCOMES

### 1104 - Degree in Environmental Sciences

- Conocer las metodologías y criterios para la selección y diseño de áreas de interés para la conservación, y los procedimientos para su calificación como espacios protegidos.
- Capacidad para diseñar y ejecutar planes de gestión de espacios protegidos.

## LEARNING OUTCOMES



Practical work involving problem solving, data analysis and critical interpretation.

Knowledge of the main types of protected areas and the main techniques for selection and design.

Preparation, execution and control of management plans in protected areas.

## DESCRIPTION OF CONTENTS

### 1. SOCIAL CONTEXT OF PROTECTED AREAS.

TOPIC 1. STRATEGIC CONTEXT - Sustainable development. International context. European context. National context. Protected spaces and the "new paradigm".

TOPIC 2. GLOBAL NETWORK OF PROTECTED AREAS - Institutions related to the protection of areas of interest. Conventions. Types of protected areas. Protected areas worldwide.

TOPIC 3. GOVERNANCE - Types of governance for protected areas. Role of actors involved in governance. Quality in the governance of protected areas. Problems and innovations in governance.

TOPIC 4. MANAGEMENT PROCESSES - Management functions. Planning. Organization. Leadership. Control. Goal-oriented management.

TOPIC 5. COMPETENCE DEVELOPMENT AND IMPROVEMENT - Competence levels. Which competencies? for what? for whom? Determination of competence needs. Competence development. Progress and standards. Maintenance of competence.

### 2. PRINCIPLES AND PRACTICAL ASPECTS (I)

TOPIC 6. ESTABLISHMENT OF PROTECTED AREAS - Need for integrated global systems. National and bio-regional protected area systems. Systematic methods of selecting protected areas. Planning processes for the establishment of protected areas.

TOPIC 7. THREATS TO PROTECTED AREAS - Threat classification. Threat management: underlying causes. Threat management: planning and procedures. Indirect threat management. Direct threat management.

TOPIC 8. COLLECTION, HANDLING AND COMMUNICATION OF INFORMATION - Information needs. Information and data collection methods. Storage, recovery and analysis. Institutions and support partners. Communication.

TOPIC 9. MANAGEMENT PLANNING - Approaches to management. Preparation of protected area management plans. Guidelines for good planning.

TOPIC 10. PERSONNEL AND ECONOMIC MANAGEMENT - Human resources management Financing



protected areas. Valuation of services and facilities. Obtaining economic benefits. Economic and financial management.

TOPIC 11. SUSTAINABILITY AND OPERATIONS MANAGEMENT - Sustainability and organization of protected areas. Sustainable use of resources. Operations Planning. Operations Implementation.

### **3. PRINCIPLES AND PRACTICAL ASPECTS (II)**

Theme 12. GEODIVERSITY. Regional geology and Geodiversity. Elements of Geodiversity. Geological heritage. Protected areas: Places of Geological Interest. Administrative framework for the protection of Geodiversity.

Theme 13. NATURAL HERITAGE PLANNING. Principles and approaches in planning and management of Biodiversity and Geodiversity. Planning: Instruments: Natural Resources Management Plans, Use and Management Master Plans, Special Plans, Protection Standards, Natura 2000 Network Management Standards.

Theme 14. PROTECTED AREAS AND THEIR MANAGEMENT. Areas of management in protected natural areas (local, regional, European, international). Co-management. Historical evolution of co-management in Spain.

Item 15. MARINE PROTECTED AREAS. Marine zonation in relation to its conservation interest. Coastal and marine protected areas according to IUCN classification. Management of marine resources. Network of marine protected areas. Fisheries Protection Areas. Governance in Marine Protected Areas.

Theme 16. PUBLIC USE IN PROTECTED NATURAL SPACES. The Spanish States Action Plan for PNs as a precursor to public use management. Planning and research. Equipment and facilities. Visitors: activities, regularization and programs for visitors. Incidents and their management.

Topic 17. LANDSCAPE PROTECTION. Landscape protection legislation and protected areas. Law 5/2014 (GV) of the Valencian Community Landscape. Typology of landscapes. Landscape quality objectives in municipal planning. Green infrastructure. Landscape integration regulations, landscape catalogues. Protected landscapes in the Valencian Community.

### **5. PRACTICAL SESSIONS**

PRACTICE 1. (Field, 1 session of 6 hours). Visit to a protected space to display field specific management problems, solutions applied in their case, and possibilities for future improvement.

PRACTICE 2. (Computer Room, 1 session of 2 hours). Sources of environmental information (topographic base mapping, orthophoto, geodiversity, biodiversity, human settlements, ..). Databases.

PRACTICE 3. (Computer Room, 2 sessions of 2 hours). Development of a GIS for the continental-land of Valencia. Implementation of basic and thematic cartography. Geo-referenced databases. Natura 2000 network. Natural Areas in Valencian Community. Distribution of biodiversity and geodiversity. Criteria for



the selection of protected areas. Suitability of the network of protected areas.

PRACTICE 4. (Computer Room, 2 sessions of 2 hours). Development of a GIS for the marine environment of Valencia. Territorial waters - regional competition. Straight baseline. Navy hydrographic charts. Mapping bionomics. Natura 2000 network in marine environment. Marine protected areas in Valencia. Criteria for the selection of protected areas. Suitability of the network of protected areas.

## WORKLOAD

| ACTIVITY                                     | Hours         | % To be attended |
|----------------------------------------------|---------------|------------------|
| Theory classes                               | 27,00         | 100              |
| Computer classroom practice                  | 10,00         | 100              |
| Laboratory practices                         | 6,00          | 100              |
| Tutorials                                    | 2,00          | 100              |
| Study and independent work                   | 15,00         | 0                |
| Preparation of evaluation activities         | 20,00         | 0                |
| Preparing lectures                           | 20,00         | 0                |
| Preparation of practical classes and problem | 12,50         | 0                |
| <b>TOTAL</b>                                 | <b>112,50</b> |                  |

## TEACHING METHODOLOGY

### ATTENDANCE THEORY

Be explained in the 20 theory lessons theoretical agenda items. Each theme will be developed in a one hour session and will involve the presentation of content by the teacher, formulation of issues and discussion of responses. In these presentations be given to the interpretation of tables and figures, and methodological aspects, highlighting the broader aspects, and illustrate them with cases. Attendance is mandatory, and may be established by the teacher any day of class.

### ASSISTING SEMINARS

During the course held a total of 4 seminars given by experts or professionals in different aspects of management of protected areas. Attendance is mandatory.

At the end of each of the seminars the student may request written information from the discussion in the seminar, to evaluate their work.

### PREPARATION OF LESSONS FOR THEORY

Is posted here as long as the student must devote to the preparation in advance of the lessons of theory. The teaching material (screenings and screenplay of the item) of each theory lesson will be available online at least a week before the lesson develops.

### ATTENDANCE PRACTICE

The practices of the course is conducted in the field, in a departure from half a day, and sessions at the computer lab, totaling 10 hours of assistance. Among both activities cover all the topics proposed in the Internship Program. Attendance is mandatory, and the teacher will list for finding it.



At the end of each of the internship, the student will deliver the results, serving these to evaluate the activity.

#### TUTORING ASSISTANCE GROUP

During the course there will be 2 sessions of one hour of tutoring group. They present and discuss various aspects related to the subject, as the presentation of the subject and how it is organized, the organization and contents of the practices, the type of evaluation, etc.. Attendance is mandatory, and the teacher will list for finding it.

#### STUDY EXAM PREPARATION

Independent study student.

#### Examinations

Partial tests may be conducted during the course. There will be a single exam at the end of the semester, which will include questions from the theoretical and practical subject, including the content of the lectures given during the course.

#### USE OF VIRTUAL CLASSROOM (<http://aulavirtual.uv.es>)

For all activities will use the platform of e-learnig VIRTUAL CLASSROOM of the University of Valencia. The basic tools to use are:

- E-mail. Virtual Classroom from the mail module will allow fluid communication between student / a-teacher / a. Professor / a continuously used this medium to inform the student / y of any aspect related to the development of matter.

IMPORTANT: Only accept emails from the email account of the University of Valencia ([alumni.uv.es](mailto:alumni.uv.es)). "Hotmails" or other mail account will be automatically deleted.

- News. The news module was used as an information standard. The student / a Virtual Classroom to enter immediately see any news related to the subject.

- Resources. The resource kit will be the place to be deposited material of the subject: reference sources, images, animations, tutorials, practice outlines, course schedules, etc.

## EVALUATION

The assessment will consist of three sections, with the following distribution of points for section:

|                                               |           |
|-----------------------------------------------|-----------|
| Written examination of the theoretical        | 60 points |
| Attendance and delivery of the practical work | 30 points |



|                                         |            |
|-----------------------------------------|------------|
| Assistance activities and participation | 10 points  |
| TOTAL                                   | 100 points |

To pass the course must be at least 50 points in total, and at least 50% of the points of each section. In the second call for an academic year to save the note of the reviews in which a grade of at least half of the points in the first round, retained the support note. If the rating of the support section is less than one third may not pass the course in any of the calls of the academic year. Not saved any qualification of the next academic year.

## REFERENCES

### Basic

- Walkey, M., Swingland, I. R. y Russell, S. (eds.) (1999) Integrated protected area management. Kluwer, Dordrecht.
- Worboys, G. L., Lockwood, M. y De Lacy, T. (2005) Protected area management. Oxford Univ. Press, Oxford.
- Lockwood, M., Worboys, G. L. y Kothari, A. (eds.) (2006) Managing protected areas: a global guide. Earthscan, London.
- Worboys, G. L., Francis, W. L. y Lockwood, M. (eds.) (2010) Connectivity conservation management: a global guide. Earthscan, London.
- Wright, R. G. (ed.) (1999) National parks and protected areas: their role in environmental protection. Blackwell, Cambridge.
- Conselleria d'Infraestructures, Territori i Medi Ambient. (2012) Guía metodológica. Estudios de paisaje. Publicaciones de la Generalitat Valenciana. <http://www.upv.es/contenidos/CAMUNISO/info/U0670136.pdf>
- Consejería de Medio Ambiente (2013) Geodiversidad y Patrimonio Geológico de Andalucía. Itinerario geológico [http://www.juntadeandalucia.es/medioambiente/portal\\_web/servicios\\_generales/doc\\_tecnicos/2006/geodiversidad](http://www.juntadeandalucia.es/medioambiente/portal_web/servicios_generales/doc_tecnicos/2006/geodiversidad)
- IGME-Instituto Geológico y Minero de España (2013) Documento metodológico para la elaboración del inventario español de lugares de interés geológico (IELIG). <http://www.igme.es/patrimonio/novedades/METODOLOGIA%20IELIG%20web.pdf>
- IUCN (1999) Guidelines for Marine Protected Areas. <https://portals.iucn.org/library/efiles/edocs/PAG-003.pdf>
- EUROPARC-España. 2009. Conectividad ecológica y áreas protegidas. Herramientas y casos prácticos. Ed. FUNGOBE Madrid. 86 páginas.



- EUROPARC-España. 2005. Manual sobre conceptos de uso público en los espacios naturales protegidos. Ed. Fundación Fernando González Bernáldez. Madrid. 94 páginas.
- EUROPARC-España. 2008. Planificar para gestionar los espacios naturales protegidos. Ed. Fundación Interuniversitaria Fernando González Bernáldez para los espacios naturales. Madrid. 120 páginas
- EUROPARC-España 2012. El patrimonio inmaterial: valores culturales y espirituales. Manual para su incorporación en las áreas protegidas  
Ed. Fundación Fernando González Bernáldez. Madrid. 146 páginas

#### **Additional**

- Groom, M. J.; Meffe, G. K. y Carroll, C. R. (2006). Principles of Conservation Biology. 3ª ed. Sinauer, Sunderland, MA.
- Hunter M.L. y J. Gibbs (2007). Fundamentals of Conservation Biology. 3ª ed. Wiley-Blackwell.
- IUCN, Conservation International & NatureServe, 2006a. Global mammal assessment.  
[http://www.iucn.org/themes/ssc/biodiversity\\_assessments/gma/indexgma.htm](http://www.iucn.org/themes/ssc/biodiversity_assessments/gma/indexgma.htm).
- IUCN, Conservation International & NatureServe, 2006b. Global amphibian assessment.  
<http://www.globalamphibians.org>.
- Primack R. B. (2006). Essentials of Conservation Biology. 4ª ed. Sinauer, Sunderland, MA.
- Webs:
  - CORINE 2000 Land Cover - <http://terrestrial.eionet.eu.int/CLC2000>
  - Shuttle Radar Topography Mission - <http://srtm.csi.cgiar.org/>
  - Instituto Geográfico Nacional - <http://www.ign.es/ign/es/IGN/home.jsp>
  - Agencia Europea del Medio Ambiente - <http://dataservice.eea.eu.int/dataservice/>
  - Ministerio de Medio Ambiente de España (o denominación correspondiente)  
[http://www.mma.es/portal/secciones/biodiversidad/banco\\_datos/](http://www.mma.es/portal/secciones/biodiversidad/banco_datos/)
  - Institut Cartogràfic Valencià <http://www.icv.es>
  - Unión Internacional para la Conservación de la Naturaleza (UICN IUCN) - <http://www.iucn.org/>

#### **ADDENDUM COVID-19**

**This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council**

#### **English version is not available**

##### **1. Contenidos**



Se mantienen los contenidos inicialmente recogidos en la guía docente. El único cambio que se prevé en caso de limitarse las salidas al campo con estudiantes es transformar la salida actual por la realización de un trabajo on-line sobre la evaluación de un factor de perturbación en un espacio protegido concreto y la forma de gestión con que se aborda. Los temas de trabajo (factores de perturbación) serán aportados por el profesorado de la asignatura y el/la estudiante seleccionarán uno de ellos. Posteriormente esta actividad podrá requerir de una sesión de tutoría virtual a través de una sesión en BBC.

## **2. Volumen de trabajo y planificación temporal de la docencia**

Se mantiene el peso de las distintas actividades que suman las horas de dedicación en créditos ECTS marcadas en la guía docente original. Las actividades sustitutorias computarán en el mismo porcentaje que lo hacían las sustituidas.

## **3. Metodología docente**

La docencia se transformaría en docencia impartidas a través de Videoconferencias síncronas o asíncronas (según temas). En algunas sesiones, a determinar al inicio de curso, el/la estudiante tendrá colgada una serie de información que deberá trabajar previa a la sesión por videoconferencia BBC. En esta última, el profesor hará un resumen rápido de los contenidos a tratar y se formalizarán las dudas y aspectos a afianzar por parte del estudiante.

Las prácticas de informática se transformaría en sesiones virtuales guiadas por el profesor donde a partir de software libre (gvSIG, QSIG) el/la estudiante desarrollará la propuesta para la creación de una red de ENP en Comunidad Valenciana, además de una valoración según la propuesta presentada de la Red de ENP actualmente existente en Comunidad Valenciana.

## **4. Evaluación**

El peso de cada apartado de la evaluación se mantiene intacto. Las entregas de los diferentes trabajos (memoria de prácticas de informática, de la actividad que sustituiría a la salida al campo, etc.) se realizará online, mediante la herramienta de “Tareas” del Aula Virtual.

El examen de la parte teórica se realizará mediante una prueba objetiva (tipo test, preguntas de desarrollar, examen oral) a través de la herramienta del Aula Virtual.

Si algún estudiante no dispone de los medios para establecer esta conexión y acceder al aula virtual, deberá contactar con el profesorado por correo electrónico en el momento de publicación de este anexo a la guía docente para buscar soluciones personalizadas en función de las circunstancias personales y logísticas del estudiante, y las posibilidades vigentes en ese momento.

## **5. Bibliografía**

No existe cambios con respecto a la guía docente original.