

**COURSE DATA****DATA SUBJECT****Code:** 43271**Name:** Conservation and management of ecosystems**Cycle:** Master's Degree**ECTS Credits:** 6**Academic year:** 2025-26**STUDY (S)**

Degree	Center	Acad. year	Period
2148 - Master's degree in Biodiversity: Conservation and Evolution	Facultat de Ciències Biològiques	1	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
2148 - Master's degree in Biodiversity: Conservation and Evolution	Evaluation and management of ecosystems	ELECTIVES

COORDINATION

RODRIGO ALACREU MARIA ANTONIA

SUMMARY**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

OTHER REQUIREMENTS**COMPETENCES / LEARNING OUTCOMES**

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Awaken interest in the social and economic application of science.

Be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.



- Be able to access to information tools in other areas of knowledge and use them properly.
- Be able to communicate and disseminate scientific ideas.
- Be able to make quick and effective decisions in professional or research practice.
- Encourage ethical commitment and environmental awareness.
- Stimulate the capacity for critical reasoning and for argumentation based on rational criteria.
- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- To be able to assess the need to complete the scientific, historical, language, informatics, literature, ethics, social and human background in general, attending conferences, courses or doing complementary activities, self-assessing the contribution of these activities towards a comprehensive development.

DESCRIPTION OF CONTENTS

- 1.
- 2.
- 3.
- 4.



5.

WORKLOAD**PRESENCIAL ACTIVITIES**

Activity	Hours
Theory	20,00
Laboratory	15,00
Computer classroom practice	15,00
Classroom practices	10,00
Total hours	60,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	30,00
Independent study and work	0,00
Preparation of lessons	30,00
Preparation for assessment activities	30,00
Resolution of case studies	0,00
Total hours	90,00

TEACHING METHODOLOGY**EVALUATION****REFERENCES**

- Falk, D. A. & al. 1996 Restoring Diversity. Island Press. Washington. - Ferson, S. & Burgman, M. 2000. Quantitative methods for conservation biology. Springer, New York. - Groom, M. J.; G. K. Meffe, and C. R. Carroll 2006. Principles of Conservation Biology. Third Edition. Sinauer, Sunderland, MA. - Hansson, L. 1992. Ecological principles of nature conservation: applications in temperate and boreal habitats. Elsevier, London. - Hunter M.L. and J. Gibbs 2007. Fundamentals of Conservation Biology. 3rd edition. Wiley-Blackwell. - Maitland P.S. & Morgan N.C. 1997. Conservation and management of freshwater habitats: lakes, rivers and wetlands. Chapman & Hall-Kluwer. New York. - Lockwood, M., Worboys, G. L. y Kothari, A. (eds.) (2006) Managing protected areas: a global guide. Earthscan, London. - Perrow, M. R. & Davy, A. J. 2002. Handbook of ecological restoration. Cambridge University Press, Cambridge. - Pickett, S. T. A. 1997. The ecological basis of conservation: heterogeneity, ecosystems and biodiversity. Chapman & Hall, New York.



- Pimentel, D.; Westra, L. & Noss, R. F. 2000. Ecological integrity: integrating environment, conservation and health. Island Press, Washington - Primack, R. B. & J. Ros. 2002. Introducción a la biología de la conservación. Ed. Ariel Ciencia. Barcelona - Society for Ecological Restoration International Science & Policy Working Group. 2004. The SER Primer on Ecological Restoration. Society for Ecological Restoration International, Tucson, AZ - Van Andel, J. & Aronson J. 2005. Restoration ecology. Blackwell, Oxford
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- Mitsch W. J & S. E. Jorgensen. 2004. Ecological engineering and ecosystem restoration. Wiley, Hoboken, NJ. - Moss, B., Madgwick J. & Phillips G. 1996. A guide to the restoration of nutrient-enriched shallow lakes. Ed. Environmental Agency. Broads. UK. - Moss, B. 1998. Ecology of fresh waters. Man and medium, past to future. Blackwell. Oxford. - O'Sullivan P. E. & C. S. Reynolds (ed.). 2005. The Lakes Handbook Vol 2: Lake restoration and rehabilitation. Blackwell. - Petts G. & Calow P. 1996. River restoration. Blackwell Science. Oxford. - Valle Tendero, F. & al. 2004. Modelos de restauración forestal. 4 vols. Junta de Andalucía, Consejería de Medio Ambiente, Sevilla. - Wetzel, C. 2001. Limnology. Elsevier. - 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. - 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.