

Degree	Type	Year	Semester
4313784 Interdisciplinary Studies in Environmental, Economic and Social Sustainability	OT	0	1

## Contact

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## Use of languages

Principal working language: english (eng)

## Other comments on languages

English will be the main language of the course. Readings will be all in English.

## Teachers

Beatriz Rodríguez Labajos

## Prerequisites

The students need to be interested in the links between human cultures and biodiversity at the local and global levels. Basic knowledge on conservation science would be recommended (e.g. notions on natural resource management and/ or management of natural protected areas), since conventional approaches to conservation will be critically examined during the course. The course will also mobilise advanced concepts from Anthropology, Ecological Economics and Social Science research in general and therefore background knowledge on these fields would also be beneficial, although not strictly required. Good command in spoken English and teamwork skills are required.

## Objectives and Contextualisation

Biological and Cultural diversity loss are two well-known phenomena. According to most projections, over the next thirty years, 20 percent of the world's existing species may cease to exist. Less widely known, though attracting increasing attention, is the loss of the world's cultures. Several authors have remarked that the overlap between biological and cultural diversity loss is not random, and that it is tightly linked.

In this course, we will study biocultural diversity, the interest of understanding it to manage and face change, the threats it tackles and different reactions to such threats. The course encompasses four main objectives:

1. To discuss **advanced topics** of biocultural diversity coming from the fields of Anthropology, Biology, Environmental Sciences, Ecological Economics, Political Ecology and Environmental Justice.
2. To analyse the pressures faced by **vulnerable populations**, particularly indigenous and rural populations, for the conservation of biocultural diversity, and the ensuing **environmental conflicts** that emerge from these pressures.
3. To distinguish **impacts** from global change, particularly in relation to human agency, in both the biophysical environment and in bioculturally diverse societies.

4. To review **solutions and transformations** that are generated at different scales, in particular at the local community level, to tackle such pressures and impacts, and how they turn into forces for the conservation of biocultural diversity.

## Skills

- Analyse how the Earth functions on a global scale in order to understand and interpret environmental changes on the global and local scales.
- Communicate and justify conclusions clearly and unambiguously to both specialised and non-specialised audiences.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Seek out information in the scientific literature using appropriate channels, and use this information to formulate and contextualise research in environmental sciences.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Work in an international, multidisciplinary context.

## Learning outcomes

1. Communicate and justify conclusions clearly and unambiguously to both specialised and non-specialised audiences.
2. "Describe the concepts related to the idea of ""biocultural diversity."
3. Express ideas and opinions on a complex topic (regarding (relationships of human groups and protection of biodiversity).
4. Seek out information in the scientific literature using appropriate channels, and use this information to formulate and contextualise research in environmental sciences.
5. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
6. Work in an international, multidisciplinary context.
7. Work with different case studies on the concept of biocultural diversity.

## Content

The course encompasses three main blocks: A) Definition of biocultural diversity; b) Drivers and consequences of the loss of biocultural diversity; and c) (G-)Local responses to change in biocultural diversity.

Many of the lectures will present case studies from ongoing empirical research. Overall, the selected case studies illustrate the overlap between biological and cultural diversity, how the loss of cultures - often involving indigenous and impoverished peoples' removal from their lands, suppression of their societies, and the loss of traditional environmental knowledge- can affect both biodiversity and livelihoods. From there, local responses, often stemming from environmental conflicts occurring worldwide, help to defend and sometimes restore their biocultural diversity.

The contents of each part will be developed according to the calendar presented in the 'Bibliography' section, and include the following topics:

### 1. Defining biocultural diversity

- The role of biocultural diversity in shaping the values of biodiversity.
- Theoretical presentation of the main anthropological schools of thought having addressed Human-Environment relations
- The overlap between biological and cultural diversity.

- A comparative example of biocultural diversity between the Spanish Pyrenees and the High Atlas

## 2. Drivers and consequences of biocultural diversity loss

- An example of biocultural diversity genesis and loss in the Moroccan High Atlas
- Loss of traditional ecological knowledge and loss of cultural and linguistic diversity
- Cultural-Ecosystem Services in changing agroecosystems

## 3. (G-)Local responses to change in biocultural diversity

- Extractive conflicts as drivers of environmental sustainability?
- Environmental Justice movements as promoters of biocultural diversity
- Citizen science and biocultural diversity

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## Methodology

The module is composed of 12 three-hour sessions. In general, each session comprises two parts. During the first part (1.5h), a lecture (see program attached in the section of bibliography) will offer theoretical and conceptual content for the core topic addressed. One central reading will articulate the contents of the first part (the lecture) and the students are requested to read it prior to the session. In the second part (1.5h) a collective discussion will be conducted by the students around an other reading addressing research on biocultural diversity. All students need to read the selected article and, in turns, one student will propose a dynamic to undertake the critical analysis and launch discussion in this second part of the class around the proposed reading and that will also be obligatory to read for all.

## Activities

Title	Hours	ECTS	Learning outcomes
<b>Type: Directed</b>			
Theoretic presentations	18	0.72	
<b>Type: Supervised</b>			
Seminars of literature discussion	18	0.72	
<b>Type: Autonomous</b>			
Essay writing and oral presentation	34	1.36	
Search and reading of scientific texts	80	3.2	

## Evaluation

The final grade of the course will include the following parts:

15%: Active participation in the classes (both in the lecture and the discussion parts), showing that he/she understands the topic and has read the proposed texts.

15%: Critical analysis / conduction of discussion around one selected reading.

35%: 2.000-word essay on a topic to be chosen by the student in relation to the course and his/her TFM.

35%: 15-minute oral presentation of the essay (to be submitted by email one week later). Creative presentation formats are welcome.

Attendance is mandatory. If a student misses any part of a class, s/he will have to write a 500-word critical essay on the corresponding readings.

## Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Essays	35%	0	0	4, 3, 1, 7
Oral presentation of a reading	15%	0	0	3, 7
Oral presentation of the final essay	35%	0	0	3, 7
Participation in the class	15%	0	0	4, 2, 3, 5, 6

## Bibliography

Date	15h-16h30	16h30-18h
Defining biocultural diversity	30-11-16	<p><b>Theory:</b> Presentation and overall organization of the course.</p> <p><b>Theory:</b> The role of biocultural diversity in shaping the values of biodiversity.</p> <p>Reading:</p> <p><a href="#"><u>Rodríguez-Labajos, B, Martínez-Alier, J. 2013.</u></a> The Economics of Ecosystems and Biodiversity: Recent Instances for Debate. Conservation and Society, 11(4): 326-342.</p>
02-12-16	<p><b>Theory:</b> Theoretical presentation of the main anthropological schools of thought having addressed Human-Environment relations</p> <p>Obligatory reading:</p> <p><a href="#"><u>Dominguez P., Acosta R., 2014,</u></a> "Eco-antropología: Hacia un enfoque holista de la relaciones ambiente-sociedad", in Actas del XIII congreso de Antropología PERIFERIAS, FRONTERAS Y DIÁLOGOS (panel "Antropología ambiental. Estado de la cuestión y retos futuros"), Tarragona 2-5 septiembre, Ed. Universitat Rovira i Virgili/FAAEE, 2835-2858 pp.</p>	<p><b>Practicum:</b> Presentation of a reading by a student and collective discussion.</p> <p>Obligatory reading to be presented and discussed:</p> <p>Bulmer, R. N. H. 1974 « Memoirs of a small game hunter: on the track of unknown animal categories in New Guinea ». JATBA 21 : 79-99.</p>
12-12-16	<p><b>Theory:</b> The overlap between biological and cultural diversity.</p>	<p><b>Practicum:</b> Presentation of a reading by a student and collective discussion.</p>

		Obligatory reading:  Goodman, A. H., & Leatherman, T. L. (Eds.). (2010). "Introduction" in Building a new biocultural synthesis. University of Michigan Press.	Obligatory reading to be presented and discussed:  Toledo V.M. and Barrera- Bassols, N. 2008. La memoria biocultural: I a importanci a ec ológic a de las sabidurías tradicionales . Icaria, Barcelona.
19-12-16	Drivers and consequences of biocultural diversity loss	<b>Theory:</b> A comparative example of biocultural diversity between the Spanish Pyrenees and the High Atlas.  Obligatory reading:  Dominguez P., (2015) "A comparative study of two Mediterranean mountain commons and the bio-cultural diversity associated to them", in AGNOLETTI M. & EMANUELI F. (coords) Biocultural diversity in Europe, SpringerVerlag, 105-122 p.	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.  Obligatory reading to be presented and discussed:  Porter-Bolland, L., E.A. Ellis, M.R. Guariguata, I. Ruiz-Mallén, S. Negrete-Yankelevich, V. Reyes-García. Community managed forest and forest protected areas: An assessment of their conservation effectiveness across the tropics. Forest Ecology and Management. 268(SI):6-17. 2012.
21-12-16		<b>Theory:</b> An example of biocultural diversity genesis in the Moroccan High Atlas.  Obligatory reading:  Dominguez P., Bourbouze A., Demay S., Genin D. & Kosoy N. (2012). "Diverse Ecological, Economic and Socio-Cultural Values of a Traditional Common Natural Resource Management System in the Moroccan High Atlas: The Aït Ikiss Tagdalts", Environmental Values, 21 : 277-296.	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.  Obligatory reading to be presented and discussed:  Maffi, L. (2005). Linguistic, Cultural, and Biological Diversity. Annual Review of Anthropology, 34, 599-618.
10-01-17		<b>Theory:</b> Loss of traditional ecological knowledge and loss of cultural and linguistic diversity  Obligatory reading:  Gomez-Bagethun, E., & Reyes-Garcia, V. (2013). Reinterpreting Change in Traditional Ecological Knowledge. Human Ecology, 41(4), 643-647.	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.  Obligatory reading to be presented and discussed:  Perez-Llorente, I., Paneque-Galvez, J., Luz, A. C., Macia, M. J., Gueze, M., Dominguez-Gomez, J. A., & Reyes-Garcia, V. (2013). Changing indigenous cultures, economies and landscapes: The case of the Tsimane', BolivianAmazon. Landscape and Urban Planning, 120, 147-157.
12-01-17		<b>Theory:</b> Cultural Ecosystem Services in changing agroecosystems	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.

		Obligatory reading:  Hanaček K, Rodríguez-Labajos, (2016) The Impact of Land Use Changes on Cultural Ecosystem Services in Agroecosystems and related conflicts. <i>Ecosystem Services</i> . Submitted.	Obligatory reading to be presented and discussed:  <u>Tilliger B., Rodríguez-Labajos B., Bustamante J.V., Settele J. 2015. Disentangling Values in the Interrelations between Cultural Ecosystem Services and Landscape Conservation-A Case Study of the Ifugao Rice Terraces in the Philippines". <i>Land</i>, 4 (3): 888-913.</u>
(G)Local responses to change in biocultural diversity	17-01-17	<b>Theory:</b> Extractive conflicts as drivers of environmental sustainability?  Obligatory reading:  Özkaynak B, Rodriguez-Labajos, B. 2016 Mining conflicts. In <i>Ecological Economics: Nature and Society</i> (Clive L. Spash, Ed), Routledge, London.	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.  Obligatory reading to be presented and discussed:  <u>Jenkins, K. 2014. Unearthing Women's Anti-Mining Activism in the Andes: Pachamama and the "Mad Old Women", <i>Antipode</i>, 47 (2): 442-460.</u>
	19-01-17	<b>Theory:</b> Environmental Justice movements as promoters of biocultural diversity  Obligatory reading:  <u>Schlosberg, D. 2013. Theorising Environmental Justice: The Expanding Sphere of a Discourse, <i>Environmental Politics</i>, 22(1): 37-55.</u>	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.  Obligatory reading to be presented and discussed:  <u>Martinez-Alier J., Anguelovski I., Bond P., Del Bene D., Demaria F., Gerber J.-F., Greyl L., Haas W., Healy H., Marín-Burgos V., Ojo G., Porto M., Rijnhout L., Rodríguez-Labajos B., Spangenberg J., Temper L., Warlenius R. &amp; Yáñez I., 2014, Between activism and science: grassroots concepts for sustainability coined by Environmental Justice Organizations, <i>Journal of Political Ecology</i>, 21 : 19-60.</u>
	24-01-17	<b>Theory:</b> Citizen science and biocultural diversity  Obligatory reading:  <u>Riech, H., Potter, C. 2014, Citizen science as seen by scientists. Methodological, epistemological and ethical dimensions. <i>Public Understanding of Science</i>, 23(1) 107-120.</u>	<b>Practicum:</b> Presentation of a reading by a student and collective discussion.  Obligatory reading to be presented and discussed:  Dem, E., Rodríguez-Labajos, B. Bustamante J.V., Hirneisen, N., Settele J. Evaluation of volunteers' motivation and learning outcome of a citizen science program in Banahue, Philippines, <i>Conservation and Society</i> . Submitted.