

Human Origins

Code: 100749
ECTS Credits: 3

Degree	Type	Year	Semester
2500250 Biology	OT	4	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Prerequisites

There are no prerequisites to follow the course successfully

Objectives and Contextualisation

The main objective of the subject of human origins is to understand current human groups based on their evolution over time.

The study of the evolution of man is made from an integrative perspective of various disciplines. The entire process can not be understood without understanding the periodization and therefore the dating methods for each moment; The changes can not be understood without understanding the evolution of the earth and how it limits the environment, as there are climate changes that modify ecosystems. It is in this whole that we can understand the evolution from the first primates to the variability of the current man.

Throughout this process we can understand the evolution of diseases and their distribution in the biosphere.

And it is clear that from the molecular study of the different hominids it will be able to capture the variability of the current man.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Analyse and interpret the origin, evolution, diversity and behaviour of living beings.
- Assess environmental impacts.
- Be able to analyse and synthesise
- Be able to organise and plan.
- Characterise, manage, conserve and restore populations, communities and ecosystems.
- Control processes and provide services related to biology.
- Design and carry out biodiagnoses and identify and use bioindicators.
- Develop a historical vision of biology.
- Isolate, identify and analyse material of biological origin.

- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Perform genetic analyses.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Analyse present and past intra-population and inter-population variability in our species.
3. Analyse the sex- or gender-based inequalities and the gender biases present in one's own area of knowledge.
4. Analyse the sustainability indicators of the academic and professional activities within the area, integrating the social, economic and environmental dimensions.
5. Assess environmental impacts.
6. Be able to analyse and synthesise.
7. Be able to organise and plan.
8. Critically analyse the principles, values and procedures that govern the exercise of the profession.
9. Define the role of the primates in the identification of disease-causing agents.
10. Explain the historical precedents that justify the study of the human being as a separate subject area.
11. Explain the underlying biological causes of human social behaviour.
12. Identify the principal natural factors that have intervened in the distribution of human populations.
13. Interact with and advise government institutions operating in the field of social policy and population and public health policy.
14. Interpret human variability as a source of individualisation.
15. Interpret phylogeographic analyses of the human species.
16. Interpret the evolutionary dimension of hominids and their evolution in space and in time.
17. Interrelate the environmental, biological and cultural data that merge in the interpretation of human evolution.
18. Make population genetic determinations from which to interpret the relationships between normal and pathological variability in the human species, and interpret the findings.
19. Manipulate human samples and perform morphological, molecular and chromosome determinations for the diagnosis and prevention of diseases.
20. Propose new methods or well-founded alternative solutions.
21. Propose projects and actions that incorporate the gender perspective.
22. Propose ways to evaluate projects and actions for improving sustainability.
23. Select and classify museum samples and recover data from archives and registries.
24. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
25. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
26. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
27. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

28. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
29. Summarise and interpret the biology, evolution and behaviour of the order Primates.
30. Work in teams.

Content

- T. 1. Systematics: morphological and molecular
- T. 2. Dating methods
- T. 3. Reconstructing behavior
- T. 4. The origin
- T. 5. Miocene period
- T. 6.- Colonization of the savannah
- T. 7.- Routes of Asian SE
- T. 8.- Homo in Asia
- T. 9.- Homo in Europe
- T. 10. Neandertals
- T. 11. Early Homo sapiens
- T. 12. Colonization of Oceania
- T. 13. Colonization of America
- T. 14. The first villagers
- T. 15. Upper Pleistocene in Iberian Peninsula

*"**Unless the requirements enforced by the health authorities demand a prioritization or reduction of these contents."*

Methodology

El desenvolupament de les activitats formatives del curs es basa en: classes de teoria, seminaris i classes de pràctiques de laboratori i d'informàtica, cadascuna d'elles amb la seva metodologia específica. Aquestes activitats seran complementades per una sèrie de sessions de tutoria. Classes de teoria: S'han dissenyat dues tipologies, les primeres merament magistrals i les segones dirigides a un diàleg en tot moment obert respecte del tema pertinent. A les primeres l'alumnat adquireix els coneixements científics propis de l'assignatura assistint a les classes de teoria: classes magistrals amb suport de TIC, que complementarà amb l'estudi personal dels temes exposats. El material audiovisual utilitzat a classe el podrà trobar l'alumnat a l'eina de "material docent" del Campus Virtual. Aquestes classes estan concebudes com un mètode fonamentalment unidireccional de transmissió de coneixements del professorat a l'alumnat que obliga a aquest a desenvolupar estratègies d'aprenentatge autònom fora de classe. A la segona tipologia, des d'abans i amb la suficient antelació es proporcionarà

a l'alumnat la documentació necessària a debatre; l'alumnat els hauran d'haver preparat a partir del material lliurat pel professorat al Campus Virtual. Aquest alumnat i dins l'assignatura de biologia humana ja han tingut unes nocions bàsiques d'alguns temes. Dins d'aquestes classes l'alumnat tindrà l'oportunitat de discutir i debatre en profunditat les darreres novetats de la investigació en evolució humana. Seminari: es duran un investigador de primera línia per parlar i debatre aspectes de darrera actualitat. Classes de pràctiques: L'alumnat entra en contacte amb el material i tècniques de laboratori. Es debatran els resultats al final de cada pràctica i/o es recollirà els materials avaluable. L'alumnat podrà accedir als protocols i les guies de pràctiques mitjançant el Campus Virtual. Els coneixements adquirits en les classes de teoria i en l'estudi personal s'apliquen a la resolució de casos pràctics. L'alumnat treballa en grups reduïts permetent que adquireixin la capacitat de treball en grup, d'anàlisi i de síntesi. A més permet aplicar recursos estadístics en l'interpretació de dades. Tutories: L'objectiu d'aquestes sessions és múltiple: resoldre dubtes, dur a terme debats sobre temes que s'hagin proposat a classe, orientar sobre les fonts consultades per l'alumnat i explicar l'ús de les eines del Campus Virtual necessàries per les activitats proposades. Aquestes sessions no seran expositives ni en elles s'avançarà matèria del temari, sinó que seran sessions de debat i discussió. Bona part del contingut de les sessions de tutories es basaran en el treball realitzat per l'alumnat de manera autònoma.

*"*Unless the requirements enforced by the health authorities demand shifting to the online modality. In this case, the format will be adapted to the possibilities offered by the UAB's online tools."*

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Seminars	2	0.08	2, 15, 16, 17, 6
Theory I	9	0.36	2, 11, 15, 16, 17, 6, 7
Type: Supervised			
Practices	4	0.16	2, 11, 15, 16, 17, 6, 7
Theory II	9	0.36	2, 11, 15, 16, 17, 6, 7
tutoring	1	0.04	
Type: Autonomous			
Study	50	2	

Assessment

Avaluació

En tractar-se d'una avaluació continuada es tindrà en compte la participació de l'alumnat, la preparació dels seminaris, dels materials de pràctiques i les notes dels controls. Per poder assistir-hi cal que l'estudiant justifiqui haver superat les proves de bioseguretat i de seguretat que trobarà en el Campus Virtual i ser coneixedor i acceptar les normes de funcionament dels laboratoris de la Facultat de Biociències. Per a l'avaluació de l'assignatura es farà un control amb un pes del 40% de l'assignatura.

L'alumnat que no hagi superat l'examen disposarà d'un control de recuperació. Respecte a les classes de teoria tipus II es poden avaluar amb la recollida d'un qüestionari de les mateixes o d'algun petit treball al respecte. En tot cas aquesta part tindrà un pes d'un 40% de la nota. Pel que fa a les pràctiques de laboratori l'assistència és obligatòria i es valora l'actitud, destresa i el divers material que lliurarà el professorat a l'alumnat en funció de la pràctica (problemes, qüestionari,...). L'assistència a les sessions pràctiques és obligatòria. L'alumnat obtindrà la qualificació de "No Avaluable" quan l'absència sigui superior al 20% de les sessions programades. Els seminaris es treballaran a classe i s'avaluaran amb l'entrega de qüestions i problemes entregats el mateix dia del seminari. El pes de les pràctiques i dels seminaris a la nota final de l'assignatura és del 20%. Per participar a la recuperació, l'alumnat ha d'haver estat prèviament avaluat en un conjunt d'activitats el pes de les quals equivalgui a un mínim de dues terceres parts de la qualificació total de l'assignatura o mòdul. Pertant, l'alumnat obtindrà la qualificació de "No Avaluable" quan les activitats d'avaluació realitzades tinguin una ponderació inferior al 67% en la qualificació final. La nota mínima en cadascuna de les parts avaluables serà de 4. Per aprovar l'assignatura la nota ha de ser igual o superior al 5.

***Student's assessment will be performed face-to-face, unless the requirements enforced by the health authorities demand shifting to the online modality. In this case, the format will be adapted to the possibilities offered by the UAB's online tools.*

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
control	40%	0	0	2, 9, 11, 18, 12, 15, 16, 14, 17, 27, 25, 29, 23, 6, 7
intervenció en les classes de teoria tipus II	40%	0	0	8, 4, 2, 3, 1, 5, 9, 10, 11, 18, 12, 13, 15, 16, 14, 17, 19, 22, 20, 21, 27, 26, 23, 6, 7, 30
pràctiques i seminaris	20%	0	0	8, 4, 2, 3, 1, 11, 13, 15, 16, 17, 19, 22, 20, 21, 28, 27, 26, 24, 25, 23, 6, 7

Bibliography

BIBLIOGRAFIA

Boyd, Robert i Silk, Joan B. (2001). Como evolucionaron los humanos. Ariel Ciencia.

Campillo, Domingo i Subirà, M. Eulàlia (2004). Antropología Física para arqueólogos. Ed. Ariel Prehistoria.

Carbonell, Eudald Coord. (2005). Homínidos las primeras ocupaciones de los continentes. Ariel.

Larsen, Clark Spencer (2010). A Companion to Biological Anthropology. Wiley-Blackwell.

Lozano Marina i Rodríguez Xosé Pedro (2010). Dón venim? l'origen de l'Ed: Rafael Dalmau, Homo sapiens. col·lecció evoluciona núm 2.

Muehlenbein, Michael P. (2010). Human Evolutionary Biology. Cambridge University Press.

Turbón, Daniel (2006). La evolución humana. Ariel.

SPECIFIC BIBLIOGRAPHY

Most of the subject will be based on specific bibliography that will be provided throughout the course