

Caraterização da Unidade Curricular / Characterisation of the Curricular Unit

Designação da Unidade Curricular / Curricular Unit:	[3181300257] Biologia e Geologia [3181300257] Biology and Geology		
Plano / Plan:	2015/2016		
Curso / Course:	Ensino do 1.º Ciclo do Ensino Básico e de Matemática e Ciências Naturais no 2.º Ciclo do Ensino Básico		
Grau / Diploma:	Mestre		
Departamento / Department:	CEN - Ciências Exatas e Naturais		
Unidade Orgânica / Organic Unit:	Escola Superior de Educação de Viseu		
Área Científica / Scientific Area:	Área de Docência		
Ano Curricular / Curricular Year:	2		
Período / Term:	S2		
ECTS:	4		
Horas de Trabalho / Work Hours:	0108:00		
Horas de Contacto/Contact Hours:			
(T) Teóricas/Theoretical:	0000:00	(TC) Trabalho de Campo/Fieldwork:	0000:00
(TP) Teórico-Práticas/Theoretical-Practical:	0045:00	(OT) Orientação Tutorial/Tutorial Orientation:	0000:00
(P) Práticas/Practical:	0000:00	(E) Estágio/Internship:	0000:00
(PL) Práticas Laboratoriais/Practical Labs:	0000:00	(O) Outras/Others:	0000:00
(S) Seminário/Seminar:	0000:00		

Docente Responsável / Responsible Teaching

[2078] Maria Isabel Rola Rodrigues Abrantes [2163] Cristiana Do Carmo Duarte Mendes ;

Outros Docentes / Other Teaching

[2078] Maria Isabel Rola Rodrigues Abrantes

[2183] SOFIA ALEXANDRA MAÇAROCO MARTÍRIO QUARESMA MARQUES

Learning Outcomes of the Curricular Unit

- To recognize the importance of the Earth dynamics in the geological processes, in the genesis and evolution of the different types of terrestrial materials and in the modeling of the relief.
- To characterize soil constituents and main horizons.
- To recognize the importance of bioenergetic processes in the maintenance of living beings.
- To understand the processes responsible for the unity and genetic variability of individuals.
- To analyze the role of the neurohormonal system in the balance and regulation of the body.
- To understand the role of microorganisms for humans and the defense mechanisms against aggressions caused by pathogens.
- To interrelate the relevant processes for the functioning of ecological systems.
- To identify conservation strategies and sustainable management of ecological systems.

Learning Outcomes of the Curricular Unit (Lim:1000)

- To recognize the importance of the Earth dynamics in the geological processes, in the genesis and evolution of the different types of terrestrial materials and in the modeling of the relief.
- To characterize soil constituents and main horizons.
- To recognize the importance of bioenergetic processes in the maintenance of living beings.
- To understand the processes responsible for the unity and genetic variability of individuals.
- To analyze the role of the neurohormonal system in the balance and regulation of the body.
- To understand the role of microorganisms for humans and the defense mechanisms against aggressions caused by pathogens.
- To interrelate the relevant processes for the functioning of ecological systems.
- To identify conservation strategies and sustainable management of ecological systems.

Bibliografia / Bibliography (Lim:1000)

Azevedo, C. (2005). *Biologia celular e molecular*. Porto: LIDEL. Botelho da Costa, J. (2011). *Caracterização e constituição do solo*. Lisboa: Fundação Calouste Gulbenkian. Carapeto, C. (2004). *Fundamentos de ecologia*. Lisboa: Universidade Aberta. Carvalho, A., Carvalho, C., Madeira, V., Nobre, A., Pires, E. (1984). *Biologia Funcional*. Coimbra: Livraria Almedina. Galopim de Carvalho, A.M. (2006). *Geologia sedimentar*. vol. I/III, Col. Sopas de Pedra. Lisboa: Âncora Ed. Odum, E.P. (2004). *Fundamentos e Ecologia*, 7.^a Edição. Lisboa: Fundação Calouste Gulbenkian. Lutgens, F.K., Tarbuck, E.J., Tasa, D.G. (2011). *Essentials of geology*, 11th edition. Essex: Pearson. Molles, M. (2013). *Ecology: concepts and applications*. New York: McGrawHill. Plummer, C.C., Carlson, D., Hammersley, L. (2012). *Physical geology*, 14th edition. New York: William C. Brown Publisher. Sachs, Z. D. (2017). *A Era do Desenvolvimento Sustentável*. Lisboa: Actual Editora.

Azevedo, C. (2005). *Biologia celular e molecular*. Porto: LIDEL.

Botelho da Costa, J. (2011). *Caracterização e constituição do solo*. Lisboa: Fundação Calouste Gulbenkian.

Carapeto, C. (2004). *Fundamentos de ecologia*. Lisboa: Universidade Aberta.

Carvalho, A., Carvalho, C., Madeira, V., Nobre, A., Pires, E. (1984). *Biologia Funcional*. Coimbra: Livraria Almedina.

Galopim de Carvalho, A.M. (2006). *Geologia sedimentar*. vol. I/III, Col. Sopas de Pedra. Lisboa: Âncora Ed.

Odum, E.P. (2004). *Fundamentos e Ecologia*, 7.^a Edição. Lisboa: Fundação Calouste Gulbenkian.

Lutgens, F.K., Tarbuck, E.J., Tasa, D.G. (2011). *Essentials of geology*, 11th edition. Essex: Pearson.

Molles, M. (2013). *Ecology: concepts and applications*. New York: McGrawHill.

Plummer, C.C., Carlson, D., Hammersley, L. (2012). *Physical geology*, 14th edition. New York: William C. Brown Publisher.

Sachs, Z. D. (2017). *A Era do Desenvolvimento Sustentável*. Lisboa: Actual Editora.