

Updated On	2021/09/28										
Curricular Year / Period	2021/22 / S1										
Course	Agronomia										
Curricular Unit	Técnicas de Produção Florestal										
Language(s) of Instruction	Portuguese										
ECTS/tempo de trabalho (horas)	ECTS	Total	Horas de contacto semestral								
	6	160	T	TP	PL	S	TC	E	O	OT	EC
				64	32						
<p>T - Theoretical; TP - Theoretical and practical; LP - Laboratory Practice; S - Seminar; TG - Tutorial guidance; FW - Fieldwork; T - Training; ; EC - Clinical teaching; O* - Other hours typified as Clinical Training under the Directive 77/453/EEC of June 27, adapted by Directive 2005/36/EC.</p>											
Teacher in charge (GDPR consent) <small>[complete name, email]</small>	Orlanda De Lurdes Viamonte Povoia / opovoia@ippportalegre.pt										
Other teachers (GDPR consent) <small>[complete name, email]</small>	Susana Barreto Saraiva Dias / sdias@ippportalegre.pt										
Prerequisites <small>[Curricular Units that must precede and specific entry competences]</small>											
Learning outcomes <small>[Description of the overall and specific objectives] [Knowledge, skills and competences to be developed by students]</small>	<p>With the UC of Forestry Production Techniques, the objective is to present forest production systems, plant production techniques and the techniques of installing new stands, as well as forest management in the perspective of sustainability and the defense of forest fire.</p> <p>Skills to be acquired:</p> <ol style="list-style-type: none"> 1 - Know the Portuguese forestry sector, namely the role of the forest in economic and social development. 2 - Know the different systems of forest production, comprehending in detail the processes that originate them. 3 - Know the processes of harvesting, extraction and conservation of forest seeds, as well as critically evaluate the characteristics of a seed lot 4 - Know the methods of production of plants in nursery, as well as the cultural techniques used in forest nurseries. 5 - To know the techniques of Installation and conduction of new forest stands. 6 - Collect and analyze dendrometric data in order to generate quantitative information about trees and stands. 7 - To know the cultural interventions in the forest, understanding its importance in the productivity and the quality of the forest products. 8 - Guiding forest operations. 9 - To know the general aspects of the ecology of the fire, as well as the forms of defense of the forest against forest fires. 										
Syllabus	<ol style="list-style-type: none"> 1 - Characterization of the Portuguese forest. 2 - Production of plants in forest nurseries. 3 - System of forest production. 4 - Installation of forest stands. 5 - Elementary notions of dendrometry. 6 - Forest exploitation. 7-Productive interventions in the forest. 8 - Management and forest management. 9 - Forest defense against fires. 										
Teaching methodologies (including assessment) <small>[Specify the types of assessment and the weights and evaluation criteria]</small>	<p>1 - Teaching methodologies</p> <p>Theoretical classes with explanation of concepts and discussion. Theoretical-practical classes with exercises and presentation and analysis of practical cases. Laboratory classes with practical</p>										

experiences. Seminar (30%); practical work (10%); Written examination tests (Part 1 (chapters 1 to 4) with 30%, part 2 (chapters 5 to 9) with 30%).

In order to waive the final exam, students must obtain a grade in the interim assessments equal to or greater than 10 values, with none of the individual classifications being less than 8.5 values.

To be admitted to the final exam, it is compulsory to submit and submit the work on the Seminar topic and to deliver 75% of the follow-up reports.

Students with worker-student status are exempt from the minimum classification for follow-up reports (which means that they may rank from 0 to 20 in this item).

All practical evaluation reports should be made available to teachers in digital format.

2 - Period assessment

Seminar (30%); practical work reports (10%); Written examination tests (Part 1 (chapters 1 to 4) with 30%, part 2 (chapters 5 to 9) with 30%).

3 - Examination assesement

Seminar (30%); Written examination tests (Part 1 (chapters 1 to 4) with 30%, part 2 (chapters 5 to 9) with 30%).

Bibliography

1 - Main Bibliography

Alves, A.A.M., Correia, A.V., Pereira, J.S. (2012), *Silvicultura: a Gestão dos Ecossistemas Florestais* (2012). Fundação Calouste Gulbenkian.

Alves, A.A.M. (1994), *Técnicas de produção florestal*. Instituto Nacional de Investigação Científica.

Fabião, A. M. D. (1996), *Árvores e Florestas* (2ª Ed.). Publicações Europa-América. Ferreira, A.G.

(2001) *Plano específico de Ordenamento Florestal para o Alentejo*. Universidade de Évora.

ICNF (2013), *IFN6 Áreas dos usos do solo e das espécies florestais de Portugal continental*.

Resultados preliminares. [pdf], 34pp, Instituto da Conservação da Natureza e das Florestas. Lisboa. <http://www.icnf.pt/portal/florestas/ifn/resource/ficheiros/ifn/ifn6-res-prelimv1-1>

Loureiro, A. M. (1992), *Dendrologia florestal*. Série Didática; N°6. Universidade de Trás-os-Montes e Alto Douro.

Macedo, F., Sardinha, A. (1987). *Fogos florestais*. Vol1 e 2. Publicações Ciência e vida.

Meson y Montoya (1994), *Silvicultura mediterránea*. Ediciones Mundi-Prensa, Madrid.

Moreira, F., Catry, F., Silva, J. S., & Rego, F. C. (2010). *Ecologia do fogo e gestão de áreas*

ardidas. *Ecologia do fogo e gestão de áreas ardidas*, 1-323. https://www.repository.utl.pt/bitstream/10400.5/3894/1/REP-Ecologia_do_Fogo.Web.Lowresolution.pdf

Rubira, J., Bueno, L. (2000). *Cultivo de plantas forestales en contenedor*. Ministério de Agricultura,

Pescas e Alimentación. Mundi- Prensa.

Silva, J.S. (2007), *Árvores e Florestas de Portugal*. Guia de campo (vol. 7), Público\Fundação Luso-

Americana para o Desenvolvimento.

Silva, J.S. (2007), *Árvores e Florestas de Portugal*. Os montados, muito para além das árvores (vol. 3),

Público\Fundação Luso-Americana para o Desenvolvimento.

Silva, J.S. (2007), *Árvores e Florestas de Portugal*. Pinhais e Eucaliptais, a floresta cultivada (vol. 4),

Público\Fundação Luso-Americana para o Desenvolvimento.

Silva, JS. (2007), *Árvores e Florestas de Portugal*. Do castanheiro ao Teixo, as outras espécies

florestais (vol. 5), Público\Fundação Luso-Americana para o Desenvolvimento.

Viegas, D.; Rossa, C; Ribeiro, L., 2011, *Incêndios Florestais*, Verlag Dashöfer Portugal

2 - Complementary Bibliography

AFN (2009), *Normas Técnicas de Elaboração dos Planos de Gestão Florestal*. AFN. Lisboa. <http://www.afn.min-agricultura.pt/portal/gestao-florestal/pgf/normas-tecnicas>

AFN (2009), *Procedimento Base para a Amostragem, Identificação e Eliminação de Resinosas*

com Declínio (Controlo do Nematódo da Madeira do Pinheiro). AFN, Lisboa. http://www.afn.min-agricultura.pt/portal/pragasdoencas/resource/ficheiros/ProspeccaoErradicacao_Proder.pdf

AFN (2009), *Processionária do Pinheiro (Thaumetopoea pityocampa Schiff.) Diagnóstico e Meios de*

Controlo.

AFN, Lisboa, <http://www.afn.minagricultura.pt/portal/pragas-doencas/resource/ficheiros/processionaria-areas-florestas2009.pdf>

CAP (2004), *Código de Boas Práticas para uma Gestão Florestal Sustentável*. CAP, Lisboa.

DGRF (1999), *Critérios e Indicadores de Gestão Florestal Sustentável ao Nível da Unidade de Gestão*,

DGRF, Lisboa, <http://www.afn.min-agricultura.pt/portal/gestaoflorestal/resource/ficheiros/gfs/Criterios-indicadores%20gestao.pdf>

DGRF (2003), *Comercialização de Materiais Florestais de Reprodução*. DGRF. Lisboa. <http://www.afn.min-agricultura.pt/portal/producao/resource/ficheiros/mfr/DL-2052003-Certificacao%20MFR.pdf>

	<p>DGRF (2006), Estratégia Nacional para as Florestas. DGRF, Lisboa, http://www.afn.min-agricultura.pt/portal/gestao-florestal/ppf/enf</p> <p>DGRF (2006), Plano Regional de Ordenamento Florestal para o Alto Alentejo. DGRF. Lisboa. http://www.afn.min-agricultura.pt/portal/gestao-florestal/profs/prof-do-altoalentejo.</p> <p>ICNF (2013), IFN6 Áreas dos usos do solo e das espécies florestais de Portugal continental. Resultados preliminares. [pdf], 34pp, Instituto da Conservação da Natureza e das Florestas. Lisboa. http://www.icnf.pt/portal/florestas/ifn/resource/ficheiros/ifn/ifn6-res-prelimv1-1</p> <p>Louro, G., Marques, H. e Salinas, F. (2000), Elementos de Apoio à Elaboração de Projectos Florestais. Estudos e Informação, nº 320. Direcção Geral das Florestas, Lisboa.</p> <p>Ribeiro, N. et al. (2009), Plano de Gestão Florestal do Perímetro Florestal da Contenda. AFN. http://www.afn.min-agricultura.pt/portal/gestao-florestal/pgf/resource/ficheiros/2010/pfcontenda/PGF_Contenda_Mar2009_Vrs00.pdf</p> <p>Secretariat of the Convention on Biological Diversity (2009), Sustainable Forest Management, Biodiversity and Livelihoods: A Good Practice Guide. Convention on Biological Diversity, Montreal, 47 pp. http://www.cbd.int/development/doc/cbdgood-practice-guide-forestry-booklet-web-en.pdf</p> <p>SMITH, D.M. (1986), The practice of silviculture, 8 th Edition. John Wiley and Sons, New York</p>
<p>Special Situations [Students with special status]</p>	<p>1 - Period assessment - Students with special status</p> <p>Seminar (30%); practical work reports (10%); Written examination tests (Part 1 (chapters 1 to 4) with 30%, part 2 (chapters 5 to 9) with 30%).</p> <p>2 - Examination assessment - Students with special status</p> <p>Seminar (30%); Written examination tests (Part 1 (chapters 1 to 4) with 30%, part 2 (chapters 5 to 9) with 30%).</p>