

Code: 1729 Forest Management and Certification**Degree:** 1st cycle - Forestry and Natural Resources**Curricular Year:** 3rd**Semester Course:** 1st**Credits:** 6 ECTS**Compulsory****Language:** Portuguese/English**Responsible:** José Guilherme Martins Dias Calvão Borges**Other lecturer(s):** Pedro César Ochoa de Carvalho**Web Site:** <http://www.isa.utl.pt/home/node/3991>**1. Contact hours:****Lecture/Practicals 70 Others 14 Total 84****2. Objectives:**

To know basic elements and methods of forest management and certification. To understand how economic and decision analysis concepts are applied to plan forest management, certification and protection. To gain familiarity with some techniques and technologies currently being used in forest management and certification. To know the context of forest management planning and certification.

3. Programme:

1. Introduction to forest management and certification. Management and certification processes basic concepts. The management of forests, its complexity and its peculiarities. Management plans vs regional plans. Protection plans. Certification and sustainability. The Portuguese context for forest management and certification

2. Forest economics and valuation. The market and resource allocations. Market failures and externalities. Practical approach to forest valuation. Forest capital and interest. Valuation and appraisal basics. Appraising the market value of forestland, damage costs and estimating the value of compensations

3. Forest management and conservation planning. A framework for decision making. Problem identification, model building, model solving and plan implementation. Decision criteria. Stand-level management planning. Pure even-aged stands; optimization of rotation, thinning and regeneration decisions. Uneven-aged and mixed stands; optimization of tree and stand harvest decisions. Simulation and dynamic programming approaches

4. Forest management certification. The concept of quality. Quality certification. Certification of sustainable forest management systems. Product certification. Life cycle analysis. The certification process and programs (or systems); comparative analysis. Approaches to certifications; individual, group, regional. The Portuguese Norm NP4406:2003. Forest products certification. The practice of certification: good management practices and capacity building

5. Seminar. Analysis of ecosystem management planning and certification (case-studies)

4. Bibliography:**Main Bibliography**

P. Bettinger, K. Boston, J. Siry e D. Grebner. 2009. Forest management and planning. Ed. 1. Academic Press, New York.

Klemperer, W. D. 1996. Forest resource economics and finance Ed.1. McGraw Hill Publishing Company, New York.

Vogt K., Larson B.C., Gordon J.C., Vogt, D. and Fanzeres A. 2000. Forest Certification. Roots, Issues, Challenges, and Benefits. CRC Press. London

Instructor handouts (notes and exercises)

Other Bibliography

Forestry journals papers

5. Assessment:

Course requirements include the presentation of a class summary (10%), a class project (30%) and a final exam (60%).

6. Estimated Workload:

168	Hours
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7. Last Update:

13/7/2010
