MODULE DESCRIPTION

General

School	Geotechnical Sciences
Department	Forest and Natural Environment Sciences

Module Information

Title	Forest Resource Planning and Management I
Course Code	F.Y.3
Level of Studies	Undergraduate
Teaching Period	Spring
Attendance Type	Compulsory
Prerequisites	Mathematics, Forest Biometrics

Orientation	Weekly Hours		Year	Semester	ECTS
	Lectures	Laboratory work			
Natural Resource Management, Protection & Climate Change	2	3	3°	6°	5

Faculty Instructors

Professor Vassiliki Kazana & Assistant Professor Dimitrios Raptis

Type of Module

- ☐ General Foundation
- ☑ Specific Foundation / Core
- ☐ Knowledge Deepening / Consolidation

Mode of Delivery

- ☑ Face to face
- ☐ Distance learning

Digital Module availability

- ☑ E-Study Guide
- ☑ Departments Website
- ☐ E-Learning

Language

	Teaching	Examination
Greek	☑	☑
English	☑	☑

Erasmus

- [x] The course is offered to exchange programme students

Learning Outcomes

Upon successful completion of the course students are expected to:
- understand the content and scope of management science with regard to forest ecosystems and forest resources
- understand the functions of management and acquire skills for planning, aim setting at different levels of planning, decision-making, organization, staffing, leading and control.
-be able to use the qualitative and quantitative analysis tools of management science, such as problem solving methods, social surveys, time programming, linear programming, forecasting, simulation, dynamic programming and decision theory in forest ecosystem and forest resources planning and management problems.

List of General Competences

- [ ] Apply knowledge in practice
- [x] Work autonomously
- [x] Work in teams
- [ ] Work in an international context
- [ ] Work in an interdisciplinary team
- [x] Respect natural environment
- [x] Advance free, creative and causative thinking

Module Content (Syllabus)

Management Science and applications on forest ecosystems and forest resources. Functions of management: planning, objectives/goals and planning levels, decision-making, organization, staffing, leading/leadership, control. Management Science/Operations Research tools for forest ecosystem and forest resource management. Qualitative Analysis Methods. Quantitative Analysis Methods: Forest Resource Management Problem Solving, Social Surveys, Project Management, Linear Programming, Forecasting, Dynamic Programming, Simulation, Decision Theory.

Keywords

Forest resource management planning, qualitative analysis methods, quantitative analysis methods

Educational Material Types

- [x] Book
- [x] Notes
- [x] Slide presentations
- [ ] Video lectures
- [x] Multimedia
- [x] Interactive exercises

☐ Other:

Use of Information and Communication Technologies

☑ Use of ICT in Course Teaching

☑ Use of ICT in Laboratory Teaching

☑ Use of ICT in Communication with Students

☑ Use of ICT in Student Assessment

Module Organization

Please fill in the workload of each course activity

Course Activity	Workload (hours)
Lectures	39
Laboratory work	58
Field Trip/Short Individual Assignments	28
Independent Study	
Total	125

* 1 ECTS unit corresponds to 25 hours of workload

Student Assessment Methods

☑ Written Exam with Multiple Choice Questions

☑ Written Exam with Short Answer Questions

☐ Written Exam with Extended Answer Questions

☐ Written Assignment

☑ Report

☐ Oral Exams

☑ Laboratory Assignment

Suggested Bibliography (Eudoxus and additional bibliography)

1. Buongiorno, J. and Gilless, J.K. (2003). Decision Methods for Forest Resource Management, Academic Press.

2. Bettinger, P., Boston, K., Siry, J.P., Grabner, D.L. (2017). Forest Management and Planning. Academic Press.

3. Grabner, D.L., Bettinger, P. and Siry, J.P. (2012). Introduction to Forestry and Natural Resource Management. Academic Press.

4. Jerram, M.R.K. (2006). A text-book on forest management. International Book Distributions.

5. Davis, L.S., Johnson, K.N., Bettinger, P. and Howard, T.E. (2005). Forest Management, CPS

Publishers, 4th edition.

6. von Gadow, K., Pukkala, T. and Tome, M. (2001). Sustainable Forest Management. Springer-Verlag.

7. Fraser, A. (2019). Achieving the sustainable management of forests. Springer-Verlag.

8. Innes, J.L. and Tikina, A.V. (2016). Sustainable forests. From concept to practice. Routledge.

9. Martinez-Falero, E., Martin-Fernandez, S. and Garcia-Abril, A. (2016). Quantitative Techniques in Participatory Forest Management. CRC Press, 1st edition.

10. Ελευθεριάδης Ν. (2003). Διαχείριση Φυσικών Χερσαίων Οικοσυστημάτων, ΧΑΡΙΣ ΕΠΕ, ISBN: 960-88036-1-6, σελ. 435

11. Καζάνα Β. (2005). Σημειώσεις Εργαστηρίου Δασικής Διαχειριστικής Ι.