

825. BIOENGINEERING TECHNICAL WORKS

Instructor: Teaching Staff with contract

1. GENERAL

FACULTY	PLANT SCIENCES		
DEPARTMENT	FORESTRY AND NATURAL ENVIRONMENT MANAGEMENT		
LEVEL OF STUDY	Undergraduate		
COURSE CODE	825	SEMESTER OF STUDY	8th
COURSE TITLE	BIOENGINEERING TECHNICAL WORKS		
INDEPENDENT TEACHING ACTIVITIES		TEACHING WEEKS	CREDITS
Lectures		2	3
Total Course		2	
COURSE TYPE	Special Background		
PREREQUISITE COURSES:	No		
LANGUAGE OF INSTRUCTION AND EXAMINATIONS:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)			

2. LEARNING OUTCOMES

Learning Outcomes
<p>The subject of the course is horticultural arrangements.</p> <p>The aim of the course is for the student to acquire basic knowledge about horticultural projects and constructions in dealing with erosion problems.,</p> <p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none">• has understood knowledge about the types and categories of phytotechnical arrangements.• uses the methodologies and techniques applied in horticultural constructions,• collaborates with his fellow students to create and present a plan – framework of a horticultural study which, in the future in the course of his work as a Forester, will be part of a study-plan for a forestry or other related study.
General skills
<ul style="list-style-type: none">• Search, analysis and synthesis of data and information, using the necessary technologies• Autonomous work• Teamwork• Project planning and management• Respect for the natural environment• Adaptation to new situations• Decision making

Promotion of free, creative and inductive thinking

3. COURSE CONTENT

The material per week of the course - in theory and in corresponding laboratory exercises - has as follows:

Introductory and historical data, purposes of horticultural works, industrial design, horticultural material, selection of horticultural material, choice of horticultural method, change of station quality, horticultural works, horticultural methods of arrangement of foci of production of transported materials, secondary beds, drainage of slopes and slopes, projects and settlement methods in the plains of streams, settlement methods in the wider area of watersheds, flat and moderately inclined surfaces with mild surface erosion, methods of fixing moderately inclined, bare of vegetation surfaces and agricultural soils, phytotechnical settlement methods in special cases, in road construction, to traffic safety, to reduce noise nuisance, to protect against rock falls, to expand or acquire land, protection of quays and their embankments, methods and projects for the settlement of dunes, effects, purposes.

4. TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	In the hall, in the Laboratory.	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use PowerPoint slides, use physical maps, communicate with students via video conferences, Open eClass, email. Meetings with students per person to answer questions and prepare laboratory exercises.	
TEACHING ORGANIZATION	Activity	Semester Workload
	Lectures	37
	Educational visits	8
	Personal study	30
	Total course (25 workload hours per credit unit)	75
STUDENT EVALUATION	I. Written or oral examination of the course. II. The exam includes the development of equally graded development questions, or the resolution of exercises announced to students at the beginning of the course.	

5. RECOMMENDED-BIBLIOGRAPHY

- *Suggested Bibliography:*
Dam made of fascine or wattle fences
• *Gully Control in SAT Watersheds*
• *Stream bank bioengineering practice guide*
• *Soil Bioengineering for Upland Slope Protection and Erosion Reduction*
• *Long-term studies of joint technical and biological measures*
• *Bioengineering Techniques for Stream Bank Restoration*
• *A Review of Central European Practice History of Bioengineering Techniques for Erosion Control in Rivers in Western Europe*
- *Related scientific journals:*