



IDENTIFYING DATA

Repopulation

Subject	Repopulation			
Code	P03G370V01603			
Study programme	(*)Grao en Enxeñaría Forestal			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	3rd	2nd
Teaching language				
Department				
Coordinator	González Prieto, Óscar			
Lecturers	Díaz Vázquez, Raquel González Prieto, Óscar Picos Martín, Juan			
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Web				
General description	(*)Los objetivos generales de la asignatura son: a) Conocer las bases, objeto y fundamentos de las Repoblaciones Forestales b) Conocer las características, métodos y medios necesarios para llevar a cabo las distintas operaciones relacionadas con las repoblaciones forestales c) Conocer los principios generales de la obtención de semilla forestal y producción de planta forestal en vivero.			

Competencies

Code	
B6	CG-06: Capacidade para identificar os diferentes elementos: elementos bióticos.
B7	CG-07: Capacidade para identificar os diferentes elementos: elementos físicos.
B8	CG-08: Capacidade para identificar os diferentes elementos: recursos naturais renovables susceptibles de protección, conservación e aproveitamento.
B20	CG-20: Coñecemento das bases da mellora forestal e capacidade para a súa aplicación práctica á produción de planta e á biotecnoloxía.
C21	(*)CE-21: Capacidade para coñecer, comprender e utilizar os principios de: repoboacións forestais. Xardinería e viveiros.
D1	(*)CBI 1: Capacidade de análise e síntese.
D5	(*)CBI 5: Capacidade de xestión da información.
D6	(*)CBI 6: Adquirir capacidade de resolución de problemas.
D7	(*)CBI 7: Adquirir capacidade na toma de decisións.
D11	(*)CBP 4: Habilidades de razoamento crítico.
D13	(*)CBS 1: Aprendizaxe autónoma.
D14	(*)CBS 2: Adaptación a novas situacións.
D15	(*)CBS 3: Creatividade.

Learning outcomes

Expected results from this subject	Training and Learning Results		
(*)	B6	C21	D1
	B7		D5
	B8		D6
	B20		D7
			D11
			D13
			D14
			D15
New			

Contents	
Topic	
Module I Planning and implementation of afforestation	Theme 1. Concept and choice of species Lesson 1.1. Concept of afforestation and commentary Lesson 1.2. Background and need for afforestation Lesson 1.3. Objectives of afforestation Lesson 1.4. Species selection Topic 2. Methods of re-population Lesson 2.1. Types of methods Lesson 2.2. Selection of method Topic 3. Treatment of pre-existing vegetation Lesson 3.1. Rationale and objectives Lesson 3.2. Classification of clearing procedures Lesson 3.3. Description of the clearing procedures Topic 4. Soil preparation Lesson 4.1. Rationale and objectives Lesson 4.2. Classification of soil preparation procedures Lesson 4.3. Description of soil preparation procedures Lesson 4.4. Hydrological aspects of land clearing and soil preparation Topic 5. Introduction of new species Lesson 5.1. Density of introduction Lesson 5.2. Plantings Lesson 5.3. Plantations Item 6. Further care of restocking and complementary work Lesson 6.1. Subsequent care of restocking Lesson 6.2. Complementary works Topic 7. Environmental impact of reforestation Lesson 7.1. Introduction and regulations Lesson 7.2. Considerations on the environmental impact of forest R. Lesson 7.3. Affected Factors Lesson 7.4. Impact assessment Lesson 7.5. Methodological conclusion
Module II Seeds	Topic 8. General information on forest seeds Lesson 8.1. Harvest Lesson 8.2. Extraction and cleaning Lesson 8.3. Storage Lesson 8.4. Conservation Treatments Lesson 8.5. Analysis Lesson 8.6. Germination treatments Lesson 8.7. Sowing
Module III Nurseries	Topic 9. General information on forest nurseries Lesson 9.1. Definition and classes Lesson 9.2. Water Lesson 9.3. Floor Lesson 9.4. Location, shape and size Lesson 9.5. Bare root planting Lesson 9.6. Cultivation of plant in packaging Lesson 9.7. Staked Lesson 9.8. Quality of the forest plant Lesson 9.9. Mycorrhization

Planning			
	Class hours	Hours outside the classroom	Total hours
Master Session	25.5	47.5	73
Troubleshooting and / or exercises	8	14	22
Outdoor study / field practices	8	8	16
Integrated methodologies	1	11.5	12.5
Case studies / analysis of situations	10.5	14	24.5
Multiple choice tests	0.5	0	0.5
Short answer tests	0.5	0	0.5

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
	Description
Master Session	The master lesson is the common form of development of the expository function, in which the teacher develops a series of concepts related to the contents of the Subject, and the student adopts a receptive role of this information. The use of audiovisual media (slides, transparencies, videos, video canon, etc.) will be constant in these classes since the retention of information is much greater when combining oral and visual stimuli. The masterful lesson serves to conceptually develop a theme, give global versions, develop a working methodology. etc. Depending on the progress of the course, the content of each didactic unit will be provided in advance and in writing, either as notes or as a bibliography, which enables the student to attend classes with previous reading of the topic. On the other hand, if the student knows that what is taught can be found in a book when studying, his attitude in the classroom will be directed to understand the explanation, having to take only marginal notes of what is expanded. In the case of this subject, the use of audiovisual media such as digital presentations, multimedia, transparencies, rear projection, etc. Should expedite the exposure of topics with a marked descriptive character, or in which drawings and schemes of complicated implementation are needed. The classes of directed discussion, will be made at least one throughout the course and consists of the presentation of a topic, which must meet characteristics of real problem, richness in contradictions or reasons for controversy, should be of interest to the students, who Must know the activity well enough and be sufficiently qualified to express opinions about it. The technique is oriented to overcoming uncritical memorization, fostering participation in the group and verbalization of ideas as a means that favors their assimilation. In addition, an important part of the pupils is a difficulty in expression and writing, which can contribute to overcome through this didactic resource. The role of the teacher as the conductor or moderator of the discussion is fundamental allowing all kinds of opinions on the subject. In addition, and in a complementary way to the lecture, after the presentation of controversial topics or of special interest for the students, it is interesting to organize discussions of reduced scope, questions, etc. Such an activity, which is simpler to perform than the previous one, can be considered more as a resource of elaboration and control within the master's lesson than as a technique of a nature alien to it. Other tools that help to reinforce the contents included in the master lessons are. - Case study / situation analysis / directed discussion: Formulation, analysis, resolution and debate of a problem or exercise related to the thematic of the subject. - Solving problems and / or exercises in an autonomous way: Formulation, analysis, resolution and debate of a problem or exercise related to the subject matter of the subject. - Presentations / expositions: Oral presentation by the students of a specific subject or work (usually written presentation). - Multimedia Sessions: Use of videographic / online material on aspects of the subject - Study exits / field practices: Visits-outings to the field for the observation and study of aspects previously studied / analyzed
Troubleshooting and / or exercises	Resolution of problems and / or exercises Formulation, analysis, Resolution and debate of a problem or exercise related to the theme of the Subject, by the students. Exercises and problems will be carried out on topics such as: static study of forest masses, dynamic study of the forest masses, etc

Outdoor study / field practices	The practice of the techniques, theoretically learned, must be carried out in contact with the professional practice which can only be obtained by actual practice of the techniques (or their direct observation) wherever they are carried (Industry, forest masses, etc.) The practice of techniques, theoretically learned, must be carried out in close contact with professional practice which can only be obtained by practicing techniques (or their direct observation) wherever they are carried out (industry, forest masses, etc.). The maximum number of field practices or practical trips should be carried out, without which theoretical teaching is insufficient to achieve the teaching objectives. The field practices are therefore intended to establish the concepts of the subject, give students the opportunity to get in touch with the professional world and foster relationships between students and teacher student outside the center. The realization of practical trips make sense when they really contribute new knowledge that are impossible to acquire in the School itself.
Integrated methodologies	- Organization of specific seminars or conferences - Presentations / exhibitions: Oral presentation by the students of a theme Concrete or work (usually written presentation). - Multimedia Sessions: Use of videographic / online material on aspects of the subject - Days of study of aspects previously studied / analyzed in field trips
Case studies / analysis of situations	Case study / situational analysis - Case study / situation analysis or directed discussion: Formulation, analysis, resolution and debate of a problem or exercise related to the subject matter of the subject ..

Personalized attention

Methodologies	Description
Case studies / analysis of situations	
Troubleshooting and / or exercises	
Outdoor study / field practices	

Assessment

	Description	Qualification	Training and Learning Results			
Master Session	(*).	0				
Integrated methodologies	(*).	0				
Case studies / analysis of situations	(*).	30	B6 B7 B8 B20	C21	D6 D7 D11 D13 D14 D15	
Multiple choice tests	(*).	30	B6 B7 B8 B20	C21		
Short answer tests	(*).	40	B6 B7 B8 B20	C21	D1 D11	

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

Recommendations

Subjects that are recommended to be taken simultaneously

Botany/P03G370V01303

Forestry Ecology/P03G370V01402

Subjects that it is recommended to have taken before

Biology: Plant Biology/P03G370V01201