Full name	Seed, nursery and afforestation					
Shortened name	**Status**	**Semester**	**ECTS**	**Fund of classes (T+A+L)**		
-	**Required**	V	**7**	3	0	2
Item code	ІШ-3-27о					
The school year from which the program is being implemented	*2013/2014*					

Type and level of study programs: *Academic study of forestry, first cycle of study, study program: forestry; direction: general*

Conditionality of other subjects: *There are no conditions for reporting and listening to the subject*

Learning Objectives:

The objective of the course is to introduce students to biological and technological aspects of: 1) seed production (collection, processing, storage, etc.); 2) mass production of forest seedlings (in beds, in pots, etc.) and 3) afforestation (stress during transplanting, soil preparation, planting techniques, etc.).

Outcome of the course: Acquiring the necessary knowledge for intensive production of forest seedlings in the classic way and in containers, for different purposes. Ability to manage the production of forest seedlings of different types, different technologies and for different purposes.

Name of teacher and associate:

Full professor Saša Orlović – teacher, Milena Stanković Nađić, Msc - associate

Course content:

1	*Introduction to the subject*
2	*Propagation of forest trees*
3	*The seed and its development, its manipulation*

4	*Occurrences characteristic of forest seed production*
5	*Origin of seeds collection of seeds; Extraction of seeds and fruits and types of seed extractory*
6	*Natural vitality and seed preservation Determination of qualitative and quantitative traits of seeds*
7	***Test 1***
8	*Forestry nurseries: purpose of raising and dividing.*
9	*Selection of the site for the nursery and work in nursery.*
10	*Environmental and biological factors; Organizational works; Seed breading plot, Transplanting bad, rooting bad.*
11	*Land cultivation; Natural and artificial fertilizers; Land disinfection.*
12	*Production of planting material: Seed sowing - manual and mechanized; Sowing time; Seed protection.*
13	*Saving, Weeding; Protection against insolation, frost, harmful flora and fauna.*
14	*Application of herbicides in nurseries.*
15	*Container production method of planting material: Special cultivation of plants in greenhouses, pots made of natural and artificial materials; types of containers.*
15	**Test 2**

Teaching method and mastering the material: Classes are taught in the form of lectures, exercises (numerical), tests, colloquiums, consultations

Student workload per subject:

Weekly:	***In semester :***
Credit ratio	***Total load on the subject:***
κ=6/30=0,2	*6 x 30 =**180 hours***
Weekly load:	*Active teaching:6,6x15=**99 hours of** lectures and exercises,*
=0,2 x40 hours	***Continuous assessment: 12 hours***

=8,00 hours	***Final knowledge test: 12 camu*** ***Independent work:*** *learning, consultations* ***27 hours***
Student responsibilities: Students are required to attend lectures, regularly attend exercises, take tests and colloquiums, and attend consultations regularly	
Literature: *Исајев. В., Манчић А. (2001): Шумско семенарство. Бања Лука –Београд. Стр. 1-198.* *Исајев В., Чомић Р.,Манчић А., Марић Љ.(1999):Приручник за производњу шумских контејнерских* *садница. Шумарски факултет Бања Лука, Београд-Бања Лука 1-160* *Мекић, Ф. (1997.) Сјеменарство у шумарству, Сарајево* *Мекић, Ф. (1998.) Расадници и насади, уџбеник-Шумарски факултет у Сарајеву*	
Forms of assessment and assessment: *The tests bring up to 25 points, the colloquium brings up to 25 points, the attendance and activity in classes and exercises up to 5 points, the final exam brings up to 45 points. A passing grade is earned if you score 51 or more points.*	
Special note to the subject:	

Full name	**Establishment of forest and plantations**					
Shortened name	**Status**	**Semester**	**ECTS**	**Fund of classes (T+A+L)**		
-	**Required**	VI	**4**	2	0	1
Item code	IШ-3-30o					
The school year from which the program is being implemented	*2013/2014*					
Type and level of study programs: *Academic study of forestry, first cycle of study, study*						

program: forestry; direction: general

Conditionality of other subjects: *There are no conditions for reporting and listening to the subject*

Learning Objectives:

The need for wood is increasing every day in the world, and as of today, the level of technological development and progress has not yet been replaced. Therefore, all the reproductive potentials possessed by Bosnia and Herzegovina should be exploited, given the richness of the very diverse genetic material and favorable climatic characteristics of the planting material produced. This course should teach students the techniques of planting and how to apply care measures. Particular attention will be paid to the part related to the amelioration of degraded low forests and their conversion to higher cultivation form. Listeners should also master the techniques of direct and indirect conversion of low degraded forests.

Name of teacher and associate:

Full professor Saša Orlović – teacher, Milena Stanković Nađić, Msc - associate

Course content:

1	*History and introduction. Technique in raising forest crops.*
2	*Habitat and fertilization (Interplay between habitat and number of plants; care of land in forestry).*
3	*Landscaping for plantations (cleaning and preparation of soil; regulation of humidity regime; treatment with unwanted shoots).*
4	*Land cultivation (process and mechanization), sowing and planting (organization of work, methods of sowing and planting, evaluation of planting procedures, specific tasks of crops)*
5	*Nursing and youth care measures.*
6	*Protection of crops and plantings (climatic influences, fungal diseases, harmful insects, mice, birds, game, application of chemical protective agents).*
7	*Fertilizer application and fertilizer for planting.*
8	***Test 1***

9	*Amelioration of degraded forests and land their implementation into higher cultivation form*
10	*Criteria for the classification of degraded beech high forests from the standpoint of reclamation.*
11	*Torrents: measures to prevent them from arising and remediation.*
12	*Semi-protective forest belts*
13	*Parks - trees and shrubs*
14	*Landscaping - General Notes*
15	**Test 2**

Teaching method and mastering the material: Classes are taught in the form of lectures, exercises (numerical), tests, colloquiums, consultations

Student workload per subject:

Weekly:	***In semester :***
Credit ratio	***Total load on the subject:***
к=6/30=0,2	*6 x 30 =**180 hours***
Weekly load:	*Active teaching:6,6x15=**99 hours of** lectures and exercises,*
=0,2 x40 hours	***Continuous assessment: 12 hours***
=8,00 hours	***Final knowledge test: 12 camu***
	Independent work:** learning, consultations **27 hours

Student responsibilities: Students are required to attend lectures, regularly attend exercises, take tests and colloquiums, and attend consultations regularly

Literature:

Paule, H. und Fricker, C. (1972.): Die Düngung von Waldbäumen. Hamburg&Berlin

Krüвmann, G. (1981.): Die Baumschule, Berlin und Hamburg

Матић, С. и остали (1992.): Узгајање шума, Шумско сјеменарство, Шумски расадници, Монографја „Шуме у Хрватској", Загреб
Јовковић, Б. (1952.): Шумско сјеменарство и расадници, Сарајево

Лујић, Р. (1973.): Шумске мелиорације, Београд
Forms of assessment and assessment: *The tests bring up to 25 points, the colloquium brings up to 25 points, the attendance and activity in classes and exercises up to 5 points, the final exam brings up to 45 points. A passing grade is earned if you score 51 or more points.*
Special note to the subject: