



“FOREST HARVESTING” SYLLABUS

Basic data of the subject	
Academic Unit:	University “Ukshin Hoti” Prizren
Course title:	Forest Harvesting
Program:	Forestry and Environmental Sciences
Level:	Bachelor
Course status:	Oblicative (O)
Study year:	Second year, first semester
Number of hours per week:	3+2
Credit value – ECTS:	6
Time / location:	To be announced
Lecturer:	Prof. Ass.dr.Ylli Kortoci
Contact details:	Email: ylli.kortoci@uni-prizren.com; Tel: +38345846817
Course description:	<p>The Forest Harvesting module addresses topics that help students prepare as future technicians for sustainable forestry and the environment as a whole. Forest cutting, through the utilization of the trees that have reached the age of maturity, creates the conditions for restoring the forest, the basic elements for a good ecological equilibrium. Thinning operations and sanitary cuttings operations are other competitive factors with the same objective. Forest cutting will serve the students to equip them and enable them with basic theoretical and practical knowledge of the application of technology and projection of a wide range of forest works and forest cutting. The material is available to anyone who will deal with wood cutting problems. The lectures addresses problems such as:</p> <p>Cutting and wood first processing in the forest; different technological ways for extracting wood material from parcels to motorways, near which it is stored and then loaded to the receiving places or further processing sites; basic principles, design of projection tasks; organization of labor force, utilization and evaluation of forest trees through the implementation of the most advanced and effective technologies. Selection of a forest utilization system, focusing in particular on technical and economic factors and silvicultural rules; organization and planning of works; measuring time and productivity in wood utilization. Productive and unproductive times. Work planning and practical implementation at the site.</p>



Course objectives:	<ul style="list-style-type: none"> ✓ Through the "Forest cutting" subject program students will receive the necessary information in: ✓ Means of intervention through cuttings in forest; ✓ Designing the parcel where it will be intervened by cuttings; ✓ Using the technologies adapted to Kosovo, and the advanced technologies used today in the world; Equipment and cutting technologies. ✓ Timber extraction roads and the ways they are used. ✓ Productive and unproductive times, avoiding lost time. Organization of the site etc. 		
Learning outcomes:	<ul style="list-style-type: none"> ✓ After completing this course, students should be able to: ✓ Identify technologies and technological systems of forest cutting. ✓ To describe the organization of the cutting, beaming and assortment of wood. ✓ Use the general principles of radiation and assortment. Steering wheel. Felling of large trees. ✓ Choose Arm and mechanized wood production equipment. Supplementary equipment. Blasting and blasting tools. Measuring tools. ✓ Design the collection, extraction of wood material (internal transport) and transport on the highway (external transport). 		
Contribution on student load (must correspond with learning outcomes)			
Activity	Hours	Days/week	Total
Lectures	3	15	45
Exercise theoretical/laboratory	2	15	30
Practice work	-	-	-
Contact with lecturer/consultations	1	15	15
Field exercises	1	15	15
Mid-terms, seminars	2	-	2
Homework	-	-	-
Individual time spent studying (at the library or home)	1	15	15
Final preparation for the exam	1	15	15
Time spent in evaluation (tests, quiz, final exam)	2	5	10
Projects, presentations, etc.	3	-	3
Total			150 orë (6 ECTS)



Teaching methods :	Lectures, discussions, laboratory exercises, expeditions consultations, seminars, independent projects, homework assignments, colloquium, course assignments, exams
Evaluation methods:	First assessment (colloquium): 15%, Seminars or other engagements: 10%, Regular attendance: 5% Final exam: 70%, Total: 100%.
Literature	
Basic Literature:	.Baldini, A. Cioe, R. Picchio. “Sicurezza ed Antinfortunistica nei Cantieri Forestali e di Manutenzione del Verde Urbano. Valutazione dei Rischi”. Roma 2002. KORTOÇI, Y., KELLEZI, M. (2012): Shfrytezimi i pyjeve te ahut te Shqiperise me nje silvikulture te qendrueshme.
Additional Literature:	Luciano Martarello, Arturo Millesi, Renzo Rey, Nevio Yeullaz, Giancarlo Zorzetto Struttura forestazione e sentieristica - Regione Autonoma Valle d’Aosta (Quart). Ruggero Marazzato, Tiziano Martin –Settore Gestione Proprietà Forestali Regionali e Vivaistiche – Regione Piemonte (Vercelli). Paolo Cielo - Associazione Istruttori Forestali (Torino).

Designed study plan:		
Week	Lectures	Exercises
<i>First week:</i>	Forest and forest utilization. Short history of forest utilization. The features of forestry technology.	Practice on forest and forest utilization. Short history of forest utilization. The features of forestry technology.
<i>Second week:</i>	The bases of forest utilization. Production. Wood extraction. Mechanized felling. Wood cutting methods.	Practice on the bases of forest utilization. Production. Wood extraction. Mechanized felling. Wood cutting methods.
<i>Third week:</i>	Technology and Technological System. Technology as a field of knowledge and human activity. Effects of technology. Technological system. The composition of a technological system. Processes.	Practice on technology and Technological System. Technology as a field of knowledge and human activity. Effects of technology. Technological system. The composition of a technological system. Processes.



<i>Fourth week:</i>	Timber production by arms. Site construction. Felling. Felling preparatory work, General principles of tree felling. Notch cut. Large trees felling.	Practice on timber production by arms. Site construction. Felling. Felling preparatory work. General principles of tree felling. Notch cut. Large trees felling.
<i>Fifth week:</i>	Branches removal. Necessity for branches removal. General principles of branches removal. Branch removal technique. Branches removal by chainsaw. The removal of thick tree branches.	Practice on branches removal. Necessity for branches removal. General principles of branches removal. Branch removal technique. Branches removal by chainsaw. The removal of thick tree branches.
<i>Sixth week:</i>	Cleaning of bark. Removing the coniferous species bark. Debarking advantages. Mechanized debarking.	Practice on cleaning of bark. Removing the coniferous species bark. Debarking advantages. Mechanized debarking.
<i>Seventh week:</i>	Wood assortment. Silviculture assortment. Industrial assortment. Assortment techniques. Assortment criteria's. Standards and assortment conditions.	Practice on wood assortment. Silviculture assortment. Industrial assortment. Assortment techniques. Assortment criteria's. Standards and assortment conditions.
<i>Eighth week:</i>	Sectioning and grouping. Seconding techniques. Basic rules. Wood slash by arm. Mechanic wood slash.	Practice on sectioning and grouping. Seconding techniques. Basic rules. Wood slash by arm. Mechanic wood slash.
<i>Ninth week:</i>	By arm timber production equipment. Supplementary equipment's. Felling and slash equipment. Measurement equipment's.	Practice on timber production equipment by arm. Supplementary equipment's. Felling and slash equipment. Measurement equipment's.
<i>Tenth week:</i>	Mechanized timber production. Felling and felling - stacking. Cutters. Saws. Felling heads. Felling arm. Means.	Practice on mechanized timber production. Felling and felling - stacking. Cutters. Saws. Felling heads. Felling arm. Means.

<i>Eleventh week:</i>	Collection. Extraction of timber material (internal transport). Collection systems. Animal traction. Motorcycle traction. Creeping.	Practice on collection. Extraction of timber material (internal transport). Collection systems. Animal traction. Motorcycle traction. Creeping.
<i>Twelfth week:</i>	Felling productivity. Productive time. Unproductive time. Beech forests utilization methodology. Beech high forests. Beech coppice. Collection and stacking of wood material. Collection on the side of the road. Measurement of the extracted material.	Practice on felling productivity. Productive time. Unproductive time. Beech forests utilization methodology. Beech high forests. Beech coppice. Collection and stacking of wood material. Collection on the side of the road. Measurement of the extracted material.
<i>Thirteenth week:</i>	Transportation. Transportation in the motor ways. Delivery to processing centers. Silvicultural interventions. Cleaning / thinning by arm. Forest parcel preparing by arm tools. Mechanized preparation of forest parcels.	Practice on transportation. Transportation in the motor ways. Delivery to processing centers. Silvicultural interventions. Cleaning / thinning by arm. Forest parcel preparing by arm tools. Mechanized preparation of forest parcels.
<i>Fourteenth week:</i>	Forest utilization. General provisions. Felling cutting by arm and chainsaw. Wood felling when climbing. Removing the branches with arms and chainsaw. Collecting with arms and chainsaw. Mechanized cutting and conversion.	Practice on forest utilization. General provisions. Felling cutting by arm and chainsaw. Wood felling when climbing. Removing the branches with arms and chainsaw. Collecting with arms and chainsaw. Mechanized cutting and conversion.
<i>Fifteenth week:</i>	Extraction / Internal transport. General provisions. Transportation with arm. Transportation with wood groves. Transport with animals. Transport with skidder and winch. Transportation by forwarder. Transport by cable car. High	Practice on extraction / internal transport. General provisions. Transportation with arm. Transportation with wood groves. Transport with animals. Transport with skidder and winch. Transportation by forwarder. Transport by cable car. High risk operations. Climbing in forest trees.



	risk operations. Climbing in forest trees. Utilization of wood material bursts from storms. Fires suppression.	Utilization of wood material bursts from storms. Fires suppression.
Academic policies and rules of conduct:		
Regular and active participation of students in lectures, exercises (practical part) and in seminar work. Keeping quiet in lecture, disabling mobile phones, timely access to the classroom, etc.		