

Faculty of Forestry in Hajnowka						
Study programme:	<b>Forestry</b>	Degree level: <b>full- First degree undergraduate (BSc 7 semesters) full-time</b> time/part-time programme:				
Specialization		Diploma path: -				
Module name:	<b>Forest yield science</b>					
Module type:	<b>obligatory</b>	Semester: <b>III</b>	ECTS <b>2</b>	Module ID: <b>LN3030</b>		
No. of hrs in semester:	L - 10	C - 10	LC-	P-	SW-	S-
Prerequisites:	<i>Complete with prerequisites or "-"</i>		<i>Dendrometry</i>			
Teaching methods:	<i>lecture, class, laboratory class, project, seminar, specialization workshop</i>		Assessment:	<i>Evaluation must be relevant to the intended learning outcomes</i>		
			written exam, oral exam, written tests, project - completion, presentation and discussion of the project			
Aims and objectives:	<i>recognition of the volume increment and growth regularities depending on various factors, getting the skill in stem analysis, growth models in forestry knowledge</i>					
Module content:	<i>recognition of the current and average increment of diameter, height and volume. Stand quality, site index. Stem analysis, Growth and increment of breast height diameter and height. The impact of various factors on growth and increment of forest stands. The increment intensity. Methods for determining the increment of volume and volume elements of the tree and stand, their accuracy and application in practice. Growth models - creating rules and meaning in forestry</i>					
Learning outcomes						<i>Relevance to the programme learning outcomes</i>
LO1	can calculate the tree and forest stand volume increment					L1_W03, L1_U13, L1_U15
LO2	know the different tree species volume growth rate during vegetation season and during all the live of tree					L1_W03, L1_U13, L1_U15
LO3	can perform the stem analysis					L1_W03, L1_U13, L1_U15
LO4	know the principles of creating and using the growth models					L1_W03, L1_U13, L1_U15
LO5	can explain the impact of various factors on the growth and increment of trees and stands					L1_W03, L1_U13, L1_U16
LO6	know the tree species productivity and its consequences for silviculture					L1_W03, L1_U13, L1_U17

student workload	lecture attendance	5 x2h=	10
	participation in classes, laboratory classes, etc.	5 x2h=	10
	preparation for classes, laboratory classes, projects, seminars, etc.	10 X2	20
	work on projects, reports, etc.	5 x1h=	5
	participation in student-teacher sessions related to the class / seminar / project	5h	5
	implementation of project tasks	7h + 1h=	8
	preparation for and participation in exams/tests		
		RAZEM:	58
quantitative indicators	Student workload - activities that require direct teacher participation	33	ECTS 2
		43	2
	Student workload - practical skills activities		
basic references:	1. Bruchwald A. 1999. <i>Dendrometria</i> , Wydawnictwo SGGW 2. Szymkiewicz B. 2001. <i>Tablice zasobności i przyrostu drzewostanów</i> . PWRiL 3. Czuraj M, Radwański B, Strzemski S. 1960. <i>Tablice miąższości drzew stojących</i> . PWRiL 4. Bruchwald A., Dudzińska M., Wirowski M. 1996. <i>Model wzrostu dla drzewostanów dębu szypułkowego</i> . <i>Sylvan</i> 10: 35-44		
supplementary references:	1. Borowski M. 1974. <i>Przyrost drzew i drzewostanów</i> . PWRiL Wa-wa 2. Assmann 1968. <i>Nauka o produktywności lasu</i> . PWRiL Wa-wa		
learning outcomes	<i>methods of assessing learning outcomes</i>	type of class (if more than one) where the outcomes are assessed	
LO1	lectures - written exam, exercises - written tests and projects	W, C	
LO2	lectures - written exam, exercises - written tests and projects	W, C	
LO3	lectures - written exam, exercises - written tests and projects	W, C	
LO4	lectures - written exam, exercises - written tests and projects	W, C	
LO5	lectures - written exam, exercises - written tests and projects	W, C	
LO6	lectures - written exam, exercises - written tests and projects	W, C	
Department:	Faculty of Forestry	Group instructors:	dr inż.Rafał Paluch
Date:	12.11.2013	Coordinator:	dr inż.Rafał Paluch

L - lecture    C - class    LC - laboratory class    P-project  
SW - specialization workshop    S - seminar