

UEF // MSc WOOD MATERIALS SCIENCE CURRICULUM 2017-19 (120 ECTS)

Code	Course	Compulsory/ elective	Lecturer	ECTS
Compulsory studies, 94 ECTS				94
3513061	Academic Skills in Forest Sciences	Compulsory	Blas Mola	1,5
3513142	Basics of Wood Materials Science	Compulsory	Henrik Heräjärvi	4
3514009	Industrial Biotechnology and Biorefining	Compulsory	Ari Pappinen	8
8020270	Information Skills and Sources in Science and Forestry for International Students	Compulsory	Laura Parikka	1
3513135	Innovation Management	Compulsory	Henrik Heräjärvi	4
3513162	Laboratory Practices and Methods for Wood Materials Science	Compulsory	Katri Luostarinen	5
3513139	Master's Thesis	Compulsory	Henrik Heräjärvi	30
3513141	Maturity Test	Compulsory	Antti Haapala	0
3513130	Organic and Biomass Chemistry	Compulsory	Antti Haapala	6
3513147	Perspectives to Bioeconomy	Compulsory	Antti Haapala	6
3513136	Practical Training in Wood Materials Science	Compulsory	Antti Haapala	10
3513148	Research Methodology in Forest Sciences	Compulsory	Blas Mola	3,5
3122242	Structure and Function of Plants	Compulsory	Elina Oksanen	3
3513159	Structure and Properties of Wood-based Materials	Compulsory	Petri Kärenlampi	5
3513163	Thesis Seminar I in Wood Materials Science	Compulsory	Katri Luostarinen	1
3513138	Thesis Seminar II in Wood Materials Science	Compulsory	Henrik Heräjärvi	1
3352578	Wood-Based Solid and Composite Materials	Compulsory	Reijo Lappalainen	5
Elective studies, choose 26 ECTS to complete your studies to 120 ECTS				118
<i>Forest Biomass Production and Properties</i>				
3513127	Current Issues in Forest Conservation and Biodiversity	Elective	Matti Koivula	3
3122324	Final Examination in Plant Physiology	Elective	Elina Oksanen	7
3513149	Intensive Forest Management and Production of Forest Biomass	Elective	Antti Kilpeläinen	3
3123173	Metabolomics	Elective	Markku Keinänen	4
3123155	Plant Bioactivity and Methodology	Elective	Riitta Julkunen-Tiitto	5
3123149	Plant Biochemistry	Elective	Elina Oksanen	5
<i>Biorefining and wood-based products</i>				
3410316	Basic Principles of Mass Spectrometry	Elective	Janne Jänis	4
3410364	Biological Mass Spectrometry	Elective	Janne Jänis	3
3352573	Characterization of Materials	Elective	Vesa-Pekka Lehto	5
3410365	Chemistry of Biofuels	Elective	Janne Jänis	4
3513057	Fibrous Products	Elective	Petri Kärenlampi	5
3513055	Forest Products Mechanics	Elective	Petri Kärenlampi	6
3312061	Industrial and Biomedical Optics	Elective	Kai Peiponen	4
3352572	Material Techniques	Elective	Reijo Lappalainen	5
3513058	Measurement, Scaling and Instrumentation	Elective	Petri Kärenlampi	5
3410313	Polymer Chemistry	Elective	Mika Suvanto	4
3312031	Spectral Imaging Devices	Elective	Pertti Silfsten	5
<i>Bioeconomy and Sustainability</i>				
3513019	Bioenergy Markets and Policies	Elective	Blas Mola	6
3513040	Economics of Multiple-use Forestry	Elective	Jouni Pykäläinen	3
5311717	Environmental Impact Assessment	Elective	Ismo Pölönen	5
3513151	International Forest Governance and Environmental Policy	Elective	Jukka Tikkanen	5
3513129	Supply and Energy Use of Lignocellulosic Biomass	Elective	Blas Mola	6
<i>Specific skills</i>				
8015013	Academic Writing Skills for Students in the MSc Programmes of the School of Fo	Elective	Language centre	3
3622111	Basic Statistics in English	Elective	Lauri Mehtätalo	5
1130007	Career Planning	Elective	Janne Saarela	2
3310306	MATLAB Fundamentals	Elective	Hannu Laamanen	2
1131003	Orientation for International Students	Elective	Päivi Halttilahti	1
8031004	University Computing Skills lectures	Elective	Niina Räsänen	1
8031005	University Computing Skills practices	Elective	Niina Räsänen	1
8031003	University Study Skills	Elective	Tiina Hallikainen	1
<i>Additional studies</i>				
	To be decided together with your thesis supervisor	Elective		