

Curriculum at LAB University of Applied Sciences 2021-2022

Bachelor of Engineering, Wood Technology, part-time studies, Lahti

Code	Name	1 y	2 y	ECTS total
AT00CH46	Orientation			0
AT00BZ04	Glueing	5		5
AT00BZ05	Surface Treatment	5		5
AT00BZ06	Wood Construction	5		5
TE00BH80	Joinery Technology	5		5
TE00BH79	Sawmilling and Further Processing	10		10
AT00BZ15	Furniture Industry	5		5
AT00BZ02	Forest and Raw Materials	5		5
AT00BZ16	Industrial Processes and Production	5		5
AT00BZ03	Wood Processing	5		5
TE00BF54	Wood-based Panels Technology	10		10
PUU21KMUMULTI-1021 Thesis				15
AO00BU62	Thesis Planning			0
AO00BU63	Thesis Project			0
AO00BU64	Thesis Report			0

AT00CH46 Orientation: 0 ECTS

AT00BZ04 Glueing: 5 ECTS

Learning outcomes

The student is able to:

- describe the basic phenomena (chemistry) affecting wood gluing
- define the factors influencing gluing
- compare the properties of the most common wood glues
- choose a suitable adhesive for different applications

AT00BZ05 Surface Treatment: 5 ECTS

Learning outcomes

The student is able to:

- describe basic phenomena related to wood surface treatment (chemistry)
- pre-treat the wood surface

- compare the properties of surface treatment agents and application and drying methods
- taking into account environmental and occupational safety aspects
- use film coating methods

AT00BZ06 Wood Construction: 5 ECTS

Learning outcomes

Student is able to:

- describe the structure of wood at the level of cell wall
- describe specific features of the interaction between wood and moisture
- describe how the structure of wood affects its properties
- take special characteristics of the wood into consideration in its various uses
- manage the basics of the manufacturing processes of the most common wood products

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TE00BH80 Joinery Technology: 5 ECTS

Learning outcomes

The student

- can describe the products, production techniques and applications of the joinery industry
- is able to select the right raw material and machining technique for joinery products
- is able to choose a suitable glue for different uses and analyse the properties of glues
- can take into account construction regulations and guidelines connected with the use of joinery products

TE00BH79 Sawmilling and Further Processing: 10 ECTS

Learning outcomes

The student knows

- the manufacturing processes of different sawmills
- the drying techniques of sawn timber
- the grades of sawn timber and their end uses
- the further processing methods for sawn timber

AT00BZ15 Furniture Industry: 5 ECTS

Learning outcomes

Student is able to:

- describe the operating environment of the furniture industry
- evaluate the operational strategies of companies in the sector
- describe products and their production methods in the furniture industry
- name Finnish furniture designers and their products
- analyze the Finnish furniture industry and its future

AT00BZ02 Forest and Raw Materials: 5 ECTS

Learning outcomes

The student is able to:

- basics related to tree growth and harvesting
- evaluate the use of wood as a renewable natural material
- evaluate the ecological impact of wood use
- Describe the basic structure of the tree
- describe the structure of a tree at the cellular level

AT00BZ16 Industrial Processes and Production: 5 ECTS

Learning outcomes

Student is able to:

- name the various production processes of the furniture industry
- describe production planning and control methods
- discuss the importance of different factors of production as part of layout design
- describe the principles of lean thinking and activities
- describe the principles of investment accounting and its significance for the company's profitability

AT00BZ03 Wood Processing: 5 ECTS

Learning outcomes

Student is able to:

- describe the basics related to woodworking
- discuss woodworking blades and blade materials with the blade supplier
- make choices about woodworking methods with the goal of profitable business and high-quality woodworking results
- describe the machines and equipment used for woodworking
- select suitable woodworking methods for the various stages of manufacturing a product

TE00BF54 Wood-based Panels Technology: 10 ECTS

Learning outcomes

The student is able to:

- describe the manufacturing processes of different board products
- knows the main end uses of each board type
- define the technical properties of different board types
- knows the further processing possibilities of different board types

PUU21KMUMLT-1021 Thesis: 15 ECTS

AO00BU62 Thesis Planning: 5 ECTS

Learning outcomes

The student is able to:

- describe the objectives and core contents of their thesis
- plan and describe the stages of the thesis process
- take into account the possible research permit and copyright issues

AO00BU63 Thesis Project: 5 ECTS

Learning outcomes

The student is able to:

- implement the thesis on the basis of an approved thesis plan.

AO00BU64 Thesis Report: 5 ECTS

Learning outcomes

The student is able to:

- present the results or output of their thesis
- report on their thesis in writing in accordance with the thesis guidelines of LAB University of Applied Sciences
- write a maturity test.