



BW001 - Technology of construction I

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TECHNOLOGY OF CONSTRUCTION I

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- It is on or after **5 February 2018**
- It is before end of **29 June 2018** (hidden otherwise)

LEARNING OBJECTIVES AND COMPETENCES:

The course objective is to teach the students to make a **technological regulation** of the selected partial construction processes of rough construction and finishing works and to be able to use these elaborated documents in practice for the construction execution.

ANNOTATION:

Principles of the demarcation of buildings and built structures, principles of technological approaches and relationships during the performance of the technical stages of earthwork, basic lower structures, basic upper structures and the outer envelopes of buildings. The solution of the technological, spatial and temporal structures of construction processes, sequence of activities, level of preparedness of a workplace for construction, mutual dependencies and requirements concerning quality and safety – also with regard to the environment.

Information about EXAM:

- **Only students with credit will be allowed to write the exam.**

- **To be able to write the exam student has to be registered to a specific exam date in INTRANET!**

DEADLINES FOR DELIVERY OF TASKS:

CONSULTATION OF PROJECT DOCUMENTATION

TASK 1a - EARTHWORKS (**TECHNOLOGICAL REGULATION** + ANNEXES) - **13.March 2018**

TASK 1b - EARTHWORKS (TIME PLANNING) - **20.March 2018**

TASK 2 - FOUNDATIONS - **20.March 2018**

TASK 3 - WALLING (MASONRY PROCESSES)

TASK 4 - CONCRETE STRUCTURES

TASK 5 - TIMBER ROOF CONSTRUCTION

FINAL CHECKINGS AND ACCREDITATION

LAST POSSIBLE DATE FOR ACCREDITATION



Announcements

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LECTURES

Technological regulation

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- It is before end of **4 April 2018** (hidden otherwise)

Use this template for all tasks but do not forget to adjust it according to the requirements of a particular task!!!



Template of technological regulation

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TASK 1a

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Earthworks

Video for excavations:

<https://www.youtube.com/watch?v=Ad3TXWZ-Sqc>

<https://www.youtube.com/watch?v=ElthR6akGtw>



Area excavation

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Area excavation 2

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Task 1a

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[Technological regulation](#)

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TASK 1b

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Time planning of earthworks.



[Task 1b - Example of time plan](#)

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An example of time plan for earthworks. The names of works (processes) should be same as in your technical regulation.

TASK 2

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Foundations

Prepare the [technological regulation](#) for reinforced concrete foundation for your object, determine the cubic capacity of concrete, steel and formwork - for training purposes, determine the area of formwork – classic wooden formwork. Below is an outline of regulation plus additional pictures and things that have to be described.



[Presentation - foundations](#)

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[Presentation - foundation concreting](#)

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[Technological regulation](#)

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[Appendix No.1 - Cross section of classic wooden formwork](#)

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[Appendix No.2 - axonometry of classic wooden formwork](#)

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[Example of wooden formwork 01](#)

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[Example of wooden formwork 02](#)

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Example of wooden formwork 03

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Consultations

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This exercise (06. 03. 2018) is reserved for consultations your tasks. There won't be a new task this week.

TASK 3 - Walling (Masonry processes)

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 1. Elaboration of complex [technological regulation](#) for execution of an assigned brick construction including the calculation and list of necessary materials.
 2. Design a walling process on one floor of the selected construction, machinery, mechanisms and walling tools.
 3. Graphical representation of the walling process on one floor.



Porotherm step-by-step

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Template of Technical Regulation for Masonry

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TASK 4 - Concrete structures

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Prepare the [technological regulation](#) for design of reinforced concrete ceiling slab, determine the cubic capacity of concrete, steel and formwork, also for determine the area of system formwork (modular system formwork).

Draw additional pictures by hand (plan of formwork, include all formwork elements).



Presentation - concrete structures

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Ceiling - Technological informations

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TASK 5 - TIMBER ROOF CONSTRUCTION

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Prepare the technological regulation for carpenter works (classical wooden truss).

Draw additional picture by hand:

-1x schema of implementation – The individual steps of the workflow carpentry work, e.g.

1.tie beam; 2.wall plate; 3.rafters etc.;

-The choice of the schema have to be done according to the chosen type of truss system.



Presentation No.5.I.

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Presentation No.5.II.

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Consultation No.1

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Ing. Václav Venkrbec: I am going to miss the lecture on 25th November. Consultation is possible 26th November in building B, office number B308 from 15:00 to 16:00 or by email. Thank you!

Consultation No.2

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Consultation No.3

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Credit

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