Budapest University of Technology and Economics
Faculty of Architecture

Course for MSc and BSc Students

COURSE DATA SHEET
and course requirements
10th September 2010

Basics of Construction

2.	Code of the Course	Semester	Requirements	Credit	Language	Course semester
	EPEKA501	*5. autumn*	*0+2+0 intersemester*	*2*	*English*	*10/5*

3. Accountable personnel and department:

Levenete Mályusz PhD– Dep. of Construction Management and Technology
Vidovszky István PhD – Dep. of Construction Management and Technology
Adrienn Lepel PhD– Dep. of Construction Management and Technology

4. Lecturer of the course:

Name:	Status:	Department:
Dr. Judit Gyulay	*associate professor*	*Dep. of Construction Management and Technology*
Adrienn Lepel PhD	*assistant professor*	*Dep. of Construction Management and Technology*
István Vidovszky PhD	*assistant professor*	*Dep. of Construction Management and Technology*

5. The course based on the following precognitions:

Basic studies on construction.

6. Required forgoing studies:

EPESA301 Building Constructions 2.

7. Goals of the course:

The goal of the subject is to present basic information on the technologies

and organization of construction work, with special respect on construction activities of sub and superstructures.

8. Detailed syllabus of the course:

WEEK	LECTURE	SUBJECT OF LECTURE
1.	Introduction. The construction process.	Phases and participants of the construction process (roles, responsibilities, connections, etc.).
2.	Technical preparation and controlling of the construction. Contracting process.	Detail design: Documentation for tendering (tender set of drawings), documentation for construction (working drawings) Tendering - choosing from several possible contractors
3.	The state and the environment of the construction site.	Soil-mechanics, geodesics. Reviewing natural- and geographic caracteristics of the site, accessing roads, water- and power supply, etc.
4.	Types of foundations	Types of foundations - construction technologies, conditions, requirements.
5.	SITE VISIT.	Construction of deep or semideep foundations.
6.	Conditions of the start up and the finishing of the construction work. Handover process. Quality controlling in the construction. Health and safety requirements.	Erecting the building according to the completed plans. Supervision of construction. Running-in (testing the systems of the building). Hand-over – take-over of the building (reviewing the constructions – quality and quantity - and the plans)
7.	Construction equipment. Material supply.	Main equipment of construction (earthwork, foundation work, construction of loadbearing structures, etc.) Material supply on site - to the site.
8.	SITE VISIT.	Construction of loadbearing structures.
9.	Basics of construction technology. The right order of the construction works.	Technologies in the construction process - aspects of selecting the technologies. Sequence of construction works (the follow-up of processes).
10.	Site planning of the construction.	Site organisation. General layout of the construction site, arranging temporary structures, e. g. roads, stores, etc. Location of main equipment, temporary buildings.
11.	Site planning of the construction.	Site organisation in practise. Studio work.
12.	Time scheduling.	Types, realations. List of operations, survey for quantities, labour schedule, plant schedule, material schedule.
13.	Midsemester test	
14.	Studio week.	

9. Educational methods of the course:

Considering the character of the subject both theoretical and practical knowledge is essential, therefore besides the lectures the site visits play emphasized role as well.

10. Requirements

Midsemester test.
Presence on at least 70% of the lectures.

11. Opportunities of complementation:

According to the Code of Studies and Exams of BME.

12. Consultation:

On the occasion of the lectures.

13. Literature:

The slides of the lectures on the website on the department.

Books:

1. Fullerton, Richard Lewis: Construction technology: level 1. Oxford University press, Oxford, 1980.

2. Smith, R. C.; Anders, C. K. : Principals and practices of heavy construction, Prentice-Hall, Englewood Cliffs, New Jersey, 1986

4. Earth construction technology, UN Centre of Human Settlements, Nairobi, 1986

14. Required studies and exercises of the course:

participation on the lecturers – 60%
preparation for the test – 40%

15. The syllabus of the course was elaborated by:

Name:	**Status:**	**Department:**
Adrienn Lepel PhD	*assistant professor*	*Dep. of Construction Management and Technology*

István Vidovszky PhD	*assistant professor*	*Dep. of Construction Management and Technology*