SUBJECT DATASHEET

I. SUBJECT SPECIFICATION

1 BASIC DATA

1.1 Title

URBAN AND REGIONAL DEVELOPMENT

1.2 Code

BMEEOUVAT43

1.3 Type

Module with associated contact hours

1.4 Contact hours

type	hours/week
lectures	2/week

1.5 Evaluation

midterm results

1.6 Credits

3

1.7 Coordinator

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academic rank: associate professor

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1.8 Department

Department of Highway and Railway Engineering (http://www.uvt.bme.hu)

1.9 Website

http://www.epito.bme.hu/BMEEOUVAT43

1.10 Language of instruction

Hungarian and English

1.11 Curriculum requirements

Compulsory in the Civil Engineering Bsc Programme

1.12 Prerequisites

1.13 Effective date

September 1, 2017.

2 OBJECTIVES AND LEARNING OUTCOMES

2.1 Objectives

Basic knowledge, abilities and skills in the following topics:

Urban planning and infrastructure design. Basics. Connection between mobility planning and urban planning. Legal and administrative bases. Land-Use Planning. Historical development of infrastructure. [Channels, railways, roads, motorways, aviation, high speed railways] Case studies. Urban planning, development plans, regulations, actions.

Regional development strategy of the European Union. Progress in Hungary. Strategic Environmental Monitoring. Water Framework Directive and its guidelines.

2.2 Learning outcomes

Upon successful completion of this subject, the student:

A. Knowledge

1. will learn the basics of Urban and Regional Development.
2. will learn the basic history of infrastructures and mobility. Will understand why previously implemented infrastructure supports the development.
3. will learn case studies of cities and regions developing, catching up or declining.
4. will learn the Regional development strategy of the European Union and its progress in Hungary.
5. will learn the basics of Strategic Environmental Monitoring.
6. will learn the principles and basics of the Water Framework Directive.

B. Skills

1. will be able to estimate basic technical and economical effects and side effects.
2. will be able to set up basic models in urban and mobility planning and will be able to solve basic problems [parking management, road pricing, bridge tolls, public transport supply, etc.]
3. will be able to co-operate with other professionals – such as architects, landscape architects, sociologists, environmental experts etc.

C. Attitude

1. cooperates with the tutor/lecturer and with fellow students, develops his/her co-working skills during the teamwork [HF1 – Homework 1.]
2. continuously extends his/her knowledge.
3. develops precise problem-solving skills.

D. Autonomy and responsibility

1. will be able to work autonomously and/or with individual research to complete his/her tasks.
2. is open to the comments and critics of teachers and fellow students.
3. co-operates with his/her fellow students.
4. is able to think in a total system.

2.3 Methods

Lectures, interactive lectures, case studies. Written and oral communication. Group work. Examples.

2.4 Course outline

week	Topics of lectures and/or exercise classes
1.	Effects of transportation development on urban planning and land use.
2.	Land use and mobility planning.
3.	Taxes and road prices. Effects and side effects.
4.	Sturture of cities.
5.	Concentration processes. The era of suburbanisation.
6.	Liveable, sustainable, competing cities and regions.
7.	„Kraft" Demand Model. Road prices in large cities. Case studies: Getafe-Madrid, Oslo, Stockholm. Lille – Ebbsfleet.
8.	Case studies: Vienna, Prague and Budapest.
9.	Presentation of computer aided teamworks. Overview.
10.	Regional development strategy of the European Union.
11.	Regional development strategy of the European Union. Progress in Hungary.
12.	Regional development strategy of the European Union. Progress in Hungary.
13.	Strategic Environmental Monitoring. Overview.
14.	Water Framework Directive. Guidelines.

The above programme is tentative and subject to changes due to calendar variations and other reasons specific to the actual semester. Consult the effective detailed course schedule of the course on the subject website.

2.6 Study materials

b) On-line materials:

Lectures and slides.

On-line textbook.

2.7 Other information

1) Attendance to lectures is compulsory. The credits from the subject will be refused to students missing more than four times.

2.8 Consultation

Teachers are available for consultation during their office hours, as advertised on the department website.

5. SUBJECT REQUIREMENTS

3 ASSESSMENT AND EVALUATION OF THE LEARNING OUTCOMES

3.1 General rules

The assessment of the learning outcomes specified in clause 2.2. above and the evaluation of student performance occurs via two midterm tests and a homework.

3.2 Teljesítményértékelési módszerek

Evaluation form	abbrev.	**assessed learning outcomes**
1. midterm test	ZH1 T1	A.1-A.3; B.1-B.3; C3, D.4.
2. midterm test	ZH2 T2	A.4-A.5. B.1, B.3
1. group work	HF1 HW1	A.3, B.1-B.2, C.1-C.3, D.1-D.4.

The dates of midterm tests and deadlines of assignments/homework can be found in the detailed course schedule on the subject's website.

3.3 Evaluation system

abbreviation	**score**
ZH1	50%
ZH2	33%
HF1	17%
Sum	**100%**

Criterion for completion of the subject is to collect at least 50% of the total points of all the two tests. Moreover, unsatisfactory performance of the homework will lead to a final mark 'failed' (1) independently of the result of the Tests.

3.4 Requirements and validity of signature

Signature cannot be obtained.

3.5 Grading system

If the student satisfies the attendance criteria, his/her mark will be determined as follows.

The mid-semester result will be determined on the basis of the two tests and the homework. The final mark is calculated on the basis of the weighted average of the tests and homework (with the weights shown in the table of Section 3.3).

3.6 Retake and repeat

1) The homework can be given with delay till a pre-defined date – usually one week later – by paying a fee.
2) The homework given in and accepted can be amended till the pre-defined deadline without paying a fee.

3) The two midterm tests can be repeated –without fee – at a previously determined date given in the course schedule. One midterm test can be repeated twice by paying a previously defined fee.
4) The new result of the repeated test always overwrites the former results.

3.7 Estimated workload

Activity	**hours/semester**
contact hours	14×2=28
preparation for the courses	14×1=14
preparation for the tests	2×15=30
group work	18
in total	**90**

3.8 Effective date

September 1, 2017.