

## Tárgytematika / Course Description

### Choce Modelling

NGD\_MDAA54\_1

**Tárgyfelelős neve /**

**Teacher's name:** dr. Prileszky István

**Félév / Semester:** 2019/20/2

**Beszámolási forma /**

**Assesment:** Vizsga

**Tárgy heti óraszám /**

**Teaching hours(week):** 0/0/0

**Tárgy féléves óraszám /**

**Teaching hours(sem.):** 0/0/0

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### OKTATÁS CÉLJA / AIM OF THE COURSE

#### Learning objectives:

To familiarize the students with

- the theory and methods of choice modelling in transport field,
- the practice of preference analysis and determination of utility functions,
- to practise the calibration of utility functions and to get acquainted with relevant software.

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### TANTÁRGY TARTALMA / DESCRIPTION

#### Topics:

1. Groups and characteristics of choice models. The utility theory and properties of utility function. Concept of disaggregate model, its structure and variables.
2. Steps of model building. Determination of variables. How the appropriateness of variables can be examined. Attribute variables and constants.
3. Elaboration the data of stated preference survey. How to use BIOGEM software.
4. Theory and application of logit model. Aggregation of results. Application for forecasting of travel choices.

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### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

#### Homeworks:

Building a choice model based on partly real partly estimated data of a stated preference survey.

**Grade:** based on home work and examination.

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### KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

#### Compulsory literature:

Economic Valuation with Stated Preference Techniques Summary Guide  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/191522/Economic\\_valuation\\_with\\_stated\\_preference\\_techniques.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191522/Economic_valuation_with_stated_preference_techniques.pdf)

A Self Instructing Course in Mode Choice Modeling: Multinomial and Nested Logit Models;  
[http://www.caee.utexas.edu/prof/bhat/COURSES/LM\\_Draft\\_060131Final-060630.pdf](http://www.caee.utexas.edu/prof/bhat/COURSES/LM_Draft_060131Final-060630.pdf)

**Recommended literature:**

M. Ben-Akiva and S.R. Lerman, Discrete Choice Analysis: Theory and Application to Travel Demand, The M.I.T. Press, Cambridge, MA, 1985

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