

Kaposvári Egyetem Gazdaságtudományi Kar
Kaposvár, Guba Sándor u. 40.

EDUCATIONAL THEMATICS

Course: Computer based problem solving

Course code: 3BMAF3CBP00000

Graduate level: MSc course

Number of class :1+1

Grading: practical course mark

Name of the course leader: Dr. György Kövér

Name of the lecturer, seminar leader Dr. György Kövér

Department: Department of Mathematics and Physics

Head of the department: Dr. Eleonóra Stettner, Associante Professor

Academic year: 2015/2016. I. semester

Detailed course description

The aim of this course is to let the student get to be able to use their prior knowledge of mathematics (analysis, probability calculus, operational research, etc) creating models to be solved by computers. During the course the Excel and Duali program packages will be used to create graphics, to build working solutions

Grading:

The course ends with a practical course mark. The result of two classroom and one home assignment solved by the students will create the practical course mark in 25-25-50% ratio.

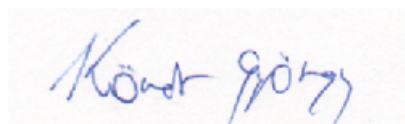
Topics:

WEEK.	FORM	LECTURE TOPIC	SEMINAR TOPIC
1.	lecture seminar	Operational research problems	application example
2.	lecture seminar	Growth model	application example
3.	lecture seminar	Neural networks	application example.
4.	lecture seminar	Transportation problems	application example .
5.	lecture seminar	Graphics	application example
6.	lecture seminar	Market equilibrium	application example
7.	lecture seminar	Matrix arithmetics	application example
8.	lecture seminar	Predator –prey model	application example
9.	lecture seminar	Monte-Carlo simulation	application example
10.	lecture seminar	Life-like simulations. Game of Life	application example
11.	lecture seminar	Introduction to Duali	application example
13.	lecture seminar	Deterministic modeling in Duali	application example
14.	lecture seminar	Stochastic control in Duali	application example

Readings:

- Hillier – Lieberman: Introduction to operations research McGraw-Hill, 2001
- Sydsaeter-Hammond: Mathematics for Economic Analysis, Prentice Hall 1995
- Kendrick, David A.; Mercado, P. Ruben; Amman, Hans M.: Computational Economics Princeton University Press, 2006

Kaposvár, 25th august 2015



lecturer



Head of the department