Course unit Descriptor	Faculty of Economics Subotica 	UNIVERZITET U NOVOM SADU UNIVERSITY OF NOVI SAD

GENERAL INFORMATION	
Study program in which the course unit is offered	Digital Marketing
Course unit title	Multicriteria Decision Making
Course unit code	MAS MKE-03
Type of course unit[1]	Optional
Level of course unit[2]	Second
Semester when the course unit is offered	Second
Yearofstudy (if applicable)	Fifth
Numberof ECTS allocated	6
Name of lecturer/lecturers	Otilija Sedlak, Aleksandra Marcikic Horvat, Dragan Stojic
Mode of course unit delivery[3]	Face-to-Face
Course unit pre-requisites (ifany)	-

PURPOSE AND OVERVIEW (max 5-10 sentences)

The aim of this course is to provide the necessary knowledge in the field of multicriteria decision-making. In the economic environment, when making decisions at different levels, the existence of multiple objectives is inevitable. Solutions for various economic problems can be found by the application of multicriteria programming methods. The decision making and management fields – whether it is about setting goals and formulating strategies, or selecting, implementing and monitoring the selected strategy – many processes are allow mathematical modelling.The aim of this course is that students acquire skills to formulate problems and use various mathematical and statistical methods for solving the problem, which is characterized by multiple objectives.

LEARNING OUTCOMES (knowledge and skills)

To enable students to use the methodology of multicriteria decision making supported by quantitative methods, in order to make business decisions with: ranking irregularities, ELECTRE methods, the Analytic Hierarchy Process (AHP), decision-making applications and to identify the variables and their suitability ratings for decisions. Students will be able to use Multi-attribute decision making techniques, partially or completely be able to rank the alternatives, and make decisions under conditions of uncertainty and high risk.

SYLLABUS (outline and summary of topics)

[1]Compulsory, optional
[2]First, secondorthirdcycle (Bachelor, Master's, Doctoral)
[3]Face-to-face, distance learning, etc.

Lectures:

1. Detection and formulation of multiple criteria problems; Multi-criteria decision-making (MCDM) is one of the most widely used decision methodologies in the sciences, business, government and engineering worlds.
2. Classifying Multi Criteria Decision Making (MCDM) problems into two classess (1) multi attribute decision making (MADM), and (2) multi objective decision making (MODM).
3. Methods for solving multiple criteria problems (Comparison, The level of satisfaction, Decision Tree Analysis, Outranking methods, Electre method, Promethee method, Analytic Hierarchy Process, Data Envelopment Analysis)
4. Multicriteria Programming (Formulation of objectives and constraints, Criteria set, Efficient set, Ideal solution, Goal programming).

Practical classes:The application of various software packages (Microsoft Excel, Lindo, Lingo, Visual Promethee) for solving practical problems in a field of multicriteria decision making.

LEARNING AND TEACHING (planned learning activities and teaching methods)

Lectures, Practical classes in computer labaratory, Discussions, Student reports, Case studies

REQUIRED READING

1. Triantaphyllou, E. (2000). Multi-Criteria Decision Making: A Comparative Study. Dordrecht, The Netherlands: Kluwer Academic Publishers
2. C. Zopounidis, P. M. Pardalos, Handbook of Multicriteria Analysis, Springer, 2009
3. Free Multi-criteria Decision Aiding (MCDA) Tools for Research Students
4. Classrooms notes, journal articles and assorted reports.

ASSESSMENT METHODS AND CRITERIA

Homeworks, case studies, midterm and final exam are required by all students.

LANGUAGE OF INSTRUCTION

English (optional: Serbian, Hungarian)