Study programmes: Master studies – Mathematics

Course name: M4.14 – Selected topics in optimization

Lecturers: Zorica Stanimirović

Status: Optional

ECTS: 8

Attendance prerequisites Bachelor studies – Mathematics

Course aims: Extension of previously gained knowledge in optimization and mathematical modeling.

Course outcome:
Acquisition of more specific theoretical and practical knowledge in optimization and mathematical modeling.

Course content:
Additional topics from various modern courses on optimization and mathematical modeling.

Literature:
Different literature will be used, depending on the specific course topics. For example, literature may include the following books (additional reading material may be included):

Griva, I., Nash, S.G., Sofer, A., *Linear and Nonlinear Optimization*, Siam, 2009.
Nocedal, J., Wright, S.J., *Numerical Optimization,* Springer, 2006.
Gendreau, M., Potvin, J.Y. (Eds.), *Handbook of Metaheuristics*, Springer, 2010.
E.G., *Metaheuristics-from design to implementation*. Willey & Sons Publications, 2009.

Number of hours: 5	**Lecures:** 3	**Excersises: /**	**Laboratory: /**	**Research:** 2

Teaching and learning methods: Frontal teaching/ Group work/ Practical work

Assessment (maximal 100 points)

Course assignments	**points**	**Final exam**	**points**
Exercises / Tutorials	10	Written exam	20
Colloquia	30	Oral exam	20
Seminars	20		