



COURSE DATASHEET

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| Semester: | 2012/13/2 |
| Course: | Optimalisation in Oil Industry |
| Code: | VEMKMOL112O |
| Responsible department: | Department of Hydrocarbon and Coal Processing |
| Department code: | MKOL |
| Responsible instructor: | Dr. Béla Kelemen |

Course objectives:

Introduction of the optimization of the whole value-chain of the petroleum industry (from the crude oil supply via the crude oil processing to the product selling). Attainment of the profit maximum is with the efficient use of the technologies and other resources. (case study oriented education).

Course content:

1. Introduction. Different time horizon planning of the supply chain of the petroleum industry. Time horizons, specifics and objects of the planning. Specifics, tasks and relations of the strategic-rolling-operative planning. Process of the yearly-monthly-daily planning and scheduling; evaluation, acceptance and post-evaluation of different plans; Objects/tasks/specifics of the scheduling.
2. Techniques of the optimization of the supply chain in the petroleum industry. Fundamentals of the modelling and linear programming. The tool of the petroleum optimization: PIMS. Tasks and application areas of PIMS.
3. Case studies – Strategy planning I.
4. Case studies – Strategy planning II.
5. Case studies – Optimization I.
6. Case studies – Optimization II.
7. Case studies – Optimization III.
8. Case study – Supply and distribution planning I.;
9. Case study – Supply and distribution planning II.;
10. Case study – Supply and distribution planning III.
11. Case study – Refinery scheduling I.
12. Case study – Refinery scheduling II.
13. Case study – Refinery scheduling III.
14. Course evaluation

Requirements, evaluation and grading:

Attending of the lectures is compulsory. More than 40% of absenteeism has obliged the signature. Evaluation is done on the base of written examination or if necessary based on an oral examination. Less than 50% of the performance is insufficient, the grade of 85% and above marks 5.

Required and recommended readings:



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