



## COURSE DATASHEET

<b>Semester:</b>	2012/13/2
<b>Course:</b>	Maintenance in the Petroleum Industry
<b>Code:</b>	VEMKMOL412O
<b>Responsible department:</b>	Department of Hydrocarbon and Coal Processing
<b>Department code:</b>	MKOL
<b>Responsible instructor:</b>	János Németh

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### Course objectives:

Introduce the fundamentals of the maintenance knowledge, especially in the petroleum industry.

### Course content:

1. Introduction;
2. Maintenance methodology I. Relation between the maintenance and the business, Optimization of the procurement, Reliability, International comparison – strategy;
3. Maintenance methodology II. Introduction of the CMMS strategy;
4. Maintenance methodology III. Methodology of the risk based maintenance;
5. Maintenance methodology IV. Introduction of the maintenance strategies (mix of maintenance techniques), Methodology of the event examination (5 WHY), Management of Change (MoC), Asset policy analysis (ESP), RCM philosophy in the practice;
6. Selection, failures and maintenance of the tube and shell type equipments;
7. Selection, failures and maintenance of the tanks and towers;
8. Supervision of non-rotating equipments;
9. Selection, failures and maintenance of pumps;
10. Selection, failures and maintenance of compressors;
11. Diagnostic of rotating equipments;
12. Digital communication and maintenance systems;
13. Kőolajipari Process automation and its building blocks in the petroleum industry;
14. Safety interlock systems. Explosion proof electric systems and their operation. DCS and ESD systems connection.

### 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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**Required and recommended readings:**