UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2016/17/1
Course:	Petroleum refining technologies
Code:	VEMKOLT11XT
Responsible department:	Department of Hydrocarbon and Coal Processing
Department code:	MKOL
Responsible instructor:	László Galambos

Course objectives:

Introduction of petroleum refining technologies

Course content:

Challenges in crude processing , Regulatory environment
Feeds and Products of crude oil refining
Separation processes and equipments
Quality improvement technologies (Octane number improvement, Hydrodesulphurization, Aromatic saturation, Catalytic dewaxing)
Conversion technologies (FCC, Hydrocracking)
Addition technologies (Alkylation, oligomerization, Ether production)
Residue processing (RFCC, DC, Rose)
Product blending
Supply system (Hydrogen unit, Claus Unit), Energy supply and utility systems
Base oil and paraffin production, Chemistry and technology of lubes
Refining emission measures and calculations
Refinery configuration, alternative product lines
Refineries in the region
Alternative fuels and technologies

Requirements, evaluation and grading:

The whole content of lectures is included in the written examination.
Grading is based on the written final examination.
The final mark is determined according to the following table based on the examination:
points final mark
above 80 excellent (5)
70-79 good (4)
60-69 medium (3)
50-59 pass (2)
below 50 fail (1)

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Required and recommended readings:

William Leffler: Petroleum Refining in Nontechnical Language, Fourth Edition, Hardcover: 270 pages, Publisher: PennWell Corp.; 4 edition (November 13, 2008), Language: English, ISBN-10: 1593701586, ISBN-13: 978-1593701581.

Thomas O. Miesner, William L. Leffler: Oil & Gas Pipelines in Nontechnical Language, Hardcover: 357 pages, Publisher: PennWell Corp. (March 15, 2006), Language: English, ISBN-10: 159370058X, ISBN-13: 978-1593700584,

Uttam Ray Chaudhuri: Fundamentals of Petroleum and Petrochemical Engineering, Taylor and Francis Group, Boca Raton, USA,
2011.

Ozren Ocic: Oil Refineries in the 21st Century, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany, 2005.

Speight, J. G.: The chemistry and technology of petroleum 4th ed., Taylor & Francis Group, Boca Raton, USA, 2007.