



APPLIED CHEMISTRY AND TRANSPORT PROCESSES

MSC IN MATERIALS ENGINEERING
(full time training)

COURSE SHEET

**UNIVERSITY OF MISKOLC
FACULTY OF MATERIALS SCIENCE AND ENGINEERING
INSTITUTE OF CHEMISTRY**

2017/18. 2nd semester, Miskolc

Course sheet
Applied Chemistry and Transport processes

<i>Course title:</i> APPLIED CHEMISTRY AND TRANSPORT PROCESSES MAKKEM272M		
<i>Lecturer:</i> Dr. Mogyoródy Ferenc	<i>weekly lessons:</i> 2+1	<i>Number of credits:</i> 6
<i>Type of the subject:</i> Faculty of Materials Science and Engineering, MSc Level		
<i>Pre-condition for subject inclusion:</i> General and inorganic Chemistry		

Institution responsible for the subject:

University of Miskolc
Faculty of Materials Science and Engineering
Institute of Chemistry

Goal of the subject:

To teach the students the knowledges of the chemistry, which are necessary for the technical engineers in the non-chemical industry.

Description of the subject:

Type and influence of the chemical reactions, the chemical speciality of the materials used in engineering. Quantity of the technological waters, chemical principles of technological water treatment. The chemistry of the natural gas, oil, mineral coal used for energy production. Green chemistry. C₁-chemistry, Transport processes, viscosity, diffusion, heat transport, electric conductance, basics of hydrodynamics.

Conditions for obtaining of credit points:

Successful examination.

Method of education:

Regular oral presentations. The material of the lectures is available for the students in pdf format.

Method of examination:

Written and oral exam.

Evaluation:

On basis of examination

Recommended literature:

The material of the lectures is available for the students in pdf format.
P.W. Atkins: Physical Chemistry II.

TEMATIC

Week	Tematic
1	Repeating Physical Chemistry
2	Green Chemistry
3	Types of Chemical Reactions and influence
4	C ₁ chemistry
5	The Water, water treatment, drinking water, industrial water, waste water and treatment
6	Connection to chemical technologies
7	Raw materials of the chemical industry
8	Energy production
9	Viscosity
10	Diffusion
11	Heat transport
12	Electric conductivity
13	test writing

Dr. Mogyoródy Ferenc
Assistant Professor