



COURSE DATASHEET

Semester:	2016/17/1
Course:	Physics and Application of Plastic Materials
Code:	VEMKMOL443M
Responsible department:	Department of Hydrocarbon and Coal Processing
Department code:	MKOL
Responsible instructor:	Dr. Norbert Miskolczi

Course objectives:

Comprehensive view about the polymers, plastic processing and measurements.

Course content:

1. Registration week
2. The history of plastics and their characteristics. The plastics industry, plastics production volumes and expected future trends. The use of plastic materials.
3. Properties of HDPE and PP, production technologies and their applications.
4. Properties of ABS, PS, PVC, production technologies and their applications.
5. Aliphatic polyamides, polycarbonates, and polyisobutylene, linear and crosslinked polyesters are produced, their properties and applications. Polyurethanes, resins (epoxy, phenolic and aminoaldehyd) properties, production and application.
6. Thermoplastics Processing-I. Preliminary operations, extrusion.
7. Thermoplastics Processing II. Injection molding, casting.
8. Thermoplastics Processing III. Calendering, blowing.
9. Thermoplastics Processing IV. Rotational molding, foaming.
10. Thermosetting plastics processing.
11. Measurement techniques-I.
12. Measurement techniques-II.
13. Laboratory practise, case study
14. Laboratory practise, case study
15. Laboratory practise, case study

Requirements, evaluation and grading:

Requirements:

Please see in HKR. Examination paper min.50%

Possibilities for repeating the subject:

Please see in HKR.

Accepted equivalent subjects:



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Requirements, evaluation and grading:

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Learning efforts necessary to satisfy the requirements of the subject:
30h/30h

Required and recommended readings:

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