Information sheet for the course Nonmetallic Materials

University: Alexander Dubček University of Trenčín

Faculty: Faculty of Industrial Technologies in Púchov

Course unit code: PP-P-16 Course unit title: Nonmetallic Materials

Type of course unit *optional*

Planned types, learning activities and teaching methods:

Lecture: 2 hours weekly/26 hours per semester of study; face to face

Seminar: 0

Laboratory tutorial: 0

Number of credits: 3

Recommended semester: the 3^{rd} semester in the 2^{nd} year of the full-time form of study

the 5^{th} semester in the 3^{rd} year of the part-time form of study

Degree of study the 1st degree of study (Bachelor's degree)

Course prerequisites: PP-P-4 Material Science I.

Assessment methods: examination

Learning outcomes of the course unit:

Students gain basic knowledge on nonmetallic materials, on their production, mechanical and utility properties. Emphasis is laid on prevailingly used nonmetallic materials used in the design of machines and equipment in individual fields of industry. Students gain cross-disciplinary knowledge from the field of production, testing and failure of nonmetallic materials and are acquainted with their industrial application. Students are orientated in the mechanical, technological and chemical properties of nonmetallic materials related with their use for particular purposes and practical application.

Course contents:

Types of nometallic materials

Thermoplastics

Reactoplastics

Elastomers

Ceramics

Glasses

Composites

Fibres and textile

Intermetallic compounds

Application of anorganic nonmetallic materials in practice

Application of organic materials in practice

Recommended references and resources:

Skočovský, P. a kol.: Konštrukčné materiály, ŽU Žilina, 2000

Pulc, V., Hrnčiar, V., Gondár, E.: Náuka o materiáli, STU Bratislava, 2004

Ptáček, L.. a kol.: Nauka o materiálu I, II. Akademické nakladatelství CERM, Brno, 2002.

Ehrenstein, G. W.: Polymerní kompozitní materiály, Scientia, Praha, 2009, ISBN-978-80-86960-

29-6.					
Language: Slovak					
Remarks: none					
Evaluation history: Number of classified students: 0					
A	В	С	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Lecturers: prof. Ing. Františka Pešlová, PhD., doc. RNDr. Ján Bezecný, CSc., prof. Ing. Darina					
Ondrušová, PhD.					
Last modification: 31.03.2015					
Supervisor: doc. Ing. Ján Vavro, PhD.					