Information sheet for the course
Textile Materials Colour Science

University: *Alexander Dubček University of Trenčín*

Faculty: *Faculty of Industrial Technologies in Púchov*

Course unit code: *MI-I-V-18*

Course unit title: *Textile Materials Colour Science*

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: *2*

Recommended semester: *3rd semester in the 2nd year full-time*
3rd semester in the 2nd year part-time

Degree of study: *the 2nd degree of study (Engineer's degree)*

Course prerequisites: *none*

Assessment methods:
Creation and presentation of semester task.

Learning outcomes of the course unit:
The student can apply the results of mixing colours to textile and predict the results of mixing colored solutions or colour deposited on paper or fabric. Understands to principles of objective evaluation of colour and mathematical description of colour. Also understand what types of colours are used for coloring of various materials and why.

Course contents:
Introduction, basic concepts in colour science. Characterization of colours
Colour mixing – additive and subtractive.
Colour from the physical and chemical point of view.
Evaluation of colour – colour atlases.
Objective assessment of colour CIE system.
Basic colouring used for various substrates, with an emphasis on textile materials. Kubelka-Munk equation for determining the concentration of the dye on the substrate. CIE LAB system. Classification of dyes from technological and chemical point of view.

Recommended of required reading:

1. *Sroková I.: Koloristika, TnUAD v Trenčíne, FPT v Púchove, Púchov, 2004.*
2. *Sroková I.: Návody pre laboratórne cvičenia z koloristiky, ES SVŠT, Bratislava, 1982.*
3. *Vik M.: Základy měření barevnosti, TUL Liberec, 1995, 109 s.*

Language: *Slovak*

Remarks: -

Evaluation history:

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Lecturers: *Ing. Vladimíra Krmelová, PhD., RNDr. Viera Mazíková, PhD.*

Last modification: *31.03.2014*

Supervisor: *prof. Ing. Darina Ondrušová, PhD.*