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| ***Name of subject:***  **Colour theory and colorimetry I.** | ***NEPTUN-code:*** RTTSZ1AENE | ***Number of hours:*** *lec+gs+lab*  2+0+2 | ***Credit:*** 4  ***Requirements:***  practice mark |
| ***Course coordinator:***  Ákos Borbély Phd | ***Title:***  associate professor | ***Prerequisite:***  - | |
| ***Subject content:*** | | | |
| Basic notions of color theory. The physical, physiological and psychological bases connected to colors. The spectrum of electromagnetic radiation, optical radiations. The structure of the human eye, photoreceptors, the structure of the retina. The general context of visual performance, the basics of color vision, the properties of color perception. Color features. The factors influencing color sensing. The methods and tools of color communication: the questions of subjective and objective color characterization; color systems, color sample atlases. The basic principles of color systems. The bases of color measurement, the objective modelling of reduced color vision. The methods and instruments of color stimulus measuring, spectrophotometers. Color contrasts. Color harmony systems. The effects and functions of colors, colorful environment. The basics of color dynamic design, the relationships of people and colors. The special characteristics of color usage. The questions of color reproduction, reproducible color ranges. Colorful techniques.  The most important practical methods of the professional field. | | | |
| ***Bibliography:*** | | | |
| 1. Nemcsics Antal: Színdinamika. Színes környezet tervezése. Akadémiai Kiadó, Budapest,1990 | | | |
| 2. Itten, Johannes: A színek művészete. Göncöl-Saxum Kiadó, Bp.2002. | | | |
| 3. <https://elearning.uni-obuda.hu/> electronic notes and aids prepared by the instructor | | | |