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| **Study program:** Doctoral academic studies **-** Chemistry | | |
| **Course title:** Metrics of Color (H339C) | | |
| **Name of lecturer/lecturers:** Milena N. Miljković | | |
| **Type of course:** elective | | |
| **Number of ECTS allocated:** 10 | | |
| **Course objectives**  Acquiring knowledge for the objective evaluation of color as a psychophysical event; the possibility of applying knowledge for prescription and quality control of color using a spectral photometer. | | |
| **Course outcomes**  The course provides students with fundamental and advanced knowledge necessary for the development of metric programs and systems used for numerical evaluation of color; ability to create recipes for correcting uneven coloring for different color groups and appropriate substrates. | | |
| **SYLLABUS**  *Lectures*  Color as a physical phenomenon. Light, color, constitution. Conventional theories. Modern theories of the origin of colors. Reactive basics of dye synthesis. Color classification. Color nomenclature. Psychophysics of colors. Color formation at the molecular level. Color dimensions. Numerical evaluation of color. CIE chromaticity diagram. Metametry. Application of color metrics in the chemical industry. Measurement technique. | | |
| **References**  1. M. Novaković, Teorija i tehnologija tekstila bojenjem i štampanjem, BMG Beograd, 1996.  2. H. Zollinger, Color Chemistry, Wiley VCH Verlag GmbH, 2008.  3. B. Meyer, H. R. Zollinger, Farbmetrik, Einführung für farbereïfachleute in der Textil-Papier-und Lederindustrie, Sandoz Ag Basel, Schweiz 1989. | | |
| **Active teaching classes** | **Lectures:** 105 | **Laboratory work:** / |
| **Teaching mode:** lectures, seminars, consultations | | |
| **ASSESSMENT METHODS AND CRITERIA (Max 100 points)** | | |
| activity during the lecture - 5 points; seminar works - 25 points; written exam - 50 points; oral exam - 20 | | |