<table>
<tr><td>Course code</td><td></td></tr>
<tr><td>Type and description</td><td>EC - elective subjects from the discipline of Chemical sciences</td></tr>
<tr><td>ECTS credit</td><td>1</td></tr>
<tr><td>Course name</td><td>Special Applications of Colorants</td></tr>
<tr><td>Course name in Polish</td><td>Barwniki i pigmenty do celów specjalnych</td></tr>
<tr><td>Language of instruction</td><td>English</td></tr>
<tr><td>Course level</td><td>8 PRK</td></tr>
<tr><td>Course coordinator</td><td>dr hab. Radosław Podsiadły</td></tr>
<tr><td>Course instructors</td><td>dr hab. Radosław Podsiadły</td></tr>
<tr><td>Delivery methods and course duration</td><td>
<table>
<tr><th></th><th>Lecture</th><th>Tutorials</th><th>Laboratory</th><th>Project</th><th>Seminar</th><th>Other</th><th>Total of teaching hours during semester</th></tr>
<tr><td>Contact hours</td><td>0</td><td>0</td><td>0</td><td>5</td><td>0</td><td>0</td><td>5</td></tr>
<tr><td>E-learning</td><td>no</td><td>no</td><td>no</td><td>no</td><td>no</td><td>no</td><td>no</td></tr>
<tr><td>Assessment criteria (weightage)</td><td>0</td><td>0</td><td>0</td><td>100%</td><td>0</td><td>0</td><td>100%</td></tr>
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<tr><td>Course objective</td><td>Course objective

Enabling the acquisition of knowledge in the field of the dyes and pigments to solve scientific problems arising during the PhD dissertation.</td></tr>
<tr><td>Learning outcomes</td><td>After the course student:

1. selects the right colorants to solve the scientific problem related to your PhD thesis; (W1 P8S_EG)

2. plans and performs experiments with use of different type of dyes or pigments; (U1 P8S_UW; U3 P8S_UO; U4 P8S_UU)

3. presents and interprets results of his experiments (U1 P8S_UW).</td></tr>
<tr><td>Assessment methods</td><td>Learning outcomes 1,2 and 3

A written report of experiments conducted within a project with special attention focused on aim of the study, theoretical background and interpretation of the results; an assessment of the correctness of the experiments and data interpretation. Presentation of project.

An assessment for prepared and presented report constitutes 100% of the final grade.</td></tr>
<tr><td>Prerequisites</td><td>Fundamental knowledge of physics, chemistry and spectroscopy</td></tr>
<tr><td>Course content with delivery methods</td><td>PROJECT

An own topic proposed by a student and related to a subject of his PhD thesis.</td></tr>
<tr><td>Basic reference materials</td><td>1. Industrial Dyes - Chemistry, Properties, Applications - ed. K. Hunger - WILEY-VCH Verlag, Weinheim, 2003.

2. Industrial Organic Pigments - eds W. Herbst, K. Hunger - WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2004</td></tr>
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Other reference materials	Scientific articles devoted to modern application of colorants in analytical, photopolymerization, PTD, etc
Average student workload outside classroom	15 h
Comments	
Last update	July 2020