

Course code																																	
Type and description	EC																																
ECTS credit	1																																
Course name	Physical Organic Chemistry part I																																
Course name in Polish	Chemia fizyko-organiczna, czesc 1																																
Language of instruction	English																																
Course level	8 PRK																																
Course coordinator	Piotr Kaszyński																																
Course instructors	Piotr Kaszyński																																
Delivery methods and course duration	<table border="1"> <thead> <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> </thead> <tbody> <tr> <td>Contact hours</td> <td>0</td> <td>0</td> <td>0</td> <td>15</td> <td></td> <td>0</td> <td>15</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></td> </tr> <tr> <td>Assessment criteria (weightage)</td> <td>0,00</td> <td></td> <td></td> <td></td> <td></td> <td>0,00</td> <td></td> </tr> </tbody> </table>		Lecture	Tutorials	Laboratory	Project	Seminar	Other	Total of teaching hours during semester	Contact hours	0	0	0	15		0	15	E-learning	No	No	No	No	No	No		Assessment criteria (weightage)	0,00					0,00	
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Course objective	To understand relationships between the electronic structure and reactivity in concerted and photochemical reactions																																
Learning outcomes	<p>After the course a PhD student is able to:</p> <ol style="list-style-type: none"> 1. understand properties and reactivity of organic compounds in the context of their electronic structures. W4, U4, K1 2. understand chemical processes and methods of their investigation, W4, U4, K1 3. knows selected pericyclic and photochemical processes, W4, U4, K1 																																
Assessment methods	<p>Effects W4, U4, K1</p> <p>Assigned projects and written and oral assessment</p> <p>The final evaluation is based on:</p> <p>attendance - 35%</p> <p>projects - 25%</p> <p>assessment - 40%</p>																																
Prerequisites	Sophomore Organic Chemistry I and II																																
Course content with delivery methods	<p>Lecture and Homework</p> <ol style="list-style-type: none"> 1. Bonding: the Huckel approximation 2. Thermal Pericyclic Reactions 																																
Basic reference materials	<ol style="list-style-type: none"> 1. Lecture notes, provided. 2. <i>Modern Physical Organic Chemistry</i>, Anslyn E. V. and Dougherty, D. A. University Science Book, 2006 																																

Other reference materials	<ol style="list-style-type: none"> 1. <i>Advanced Organic Chemistry, Part A: Structure and Mechanisms.</i> (5th Edition) Carey, F. A., and Sundberg, R. A.; Springer, 2007. (an electronic version is available on line). 2. <i>Perspectives on Structure and Mechanism in Organic Chemistry</i> Felix A. Carroll (Brooks/Cole, 1998) 3. <i>Advanced Organic Chemistry. Reactions, Mechanisms, and Structures,</i> (5th Edition) Smith and March; J. Wiley & Sons 2001.
Average student workload outside classroom	25 h
Comments	
Last update	March 15, 2023