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| **Course title**  Organic synthesis – ERASMUS  Preparatyka organiczna – ERASMUS | | | **ECTS code**  13.3.1278 |
| **Name of unit administrating study**  Faculty Chemistry | | | |
| **Studies**   |  |  |  |  | | --- | --- | --- | --- | | **Field of study** | **Type** | **Form** |  | | Chemistry | Bachelor | Full-time studies |  | | Chemistry | Master | Full-time studies |  | | | | |
| **Teaching staff**  dr Emilia Iłowska, dr hab. Andrzej Nowacki | | | |
| **Forms of classes, the realization and number of hours** | | **ECTS credits 5**  classes 45 h  tutorial classes 30 h  student’s own work 90 h  TOTAL: 125 h - 5 ECTS | |
| 1. **Forms of classes, in accordance with the UG Rector’s regulations**   laboratory classes | |
| 1. **The realization of activities**   In-class | |
| 1. **Number of hours**   45 h - lecture | |
| **The academic cycle**  summer | | | |
| **Type of course**  facultative | **Language of instruction**  English | | |
| **Teaching methods**  Laboratory experiments | **Form and method of assessment and basic criteria for evaluation or examination requirements** | | |
| **A. Final evaluation, in accordance with the UG study regulations**  course completion (with a grade) | | |
| **B. Assessment methods**  preparing final grade based on partial grades received during semester | | |
| **C. The basic criteria for evaluation** or exam requirements  Evaluation criteria in accordance with the UG Studies Regulations; | | |
| **Required courses and introductory requirements**  no requirements | | | |
| **Aims of education**  To acquaint students with all issues described in programme of exercises.  Increasing knowledge and skills in organic synthesis.  Familiarisation of students with work in laboratory on micro scale.  **Convergent to**: organic chemistry, biochemistry | | | |
| **Course contents**  Synthesis of organic compounds with different chemical properties. Technics of extract and purification obtained compounds. Analysis of purity using chromatographic technics, e.g. TLC or HPLC. Analysis of NMR spectrums (for selected compounds). | | | |
| **Bibliography of literature**  Handbook of modern organic synthesis | | | |
| **Knowledge**  - describe main characterisation of synthetized compound and give its chemical properties;  - characterize important techniques of purity the synthesized compound.;  - clarify rules of separation different substances using chromatographic metods;  - define solvents properties used during synthesis and purification. | | | |
| **Skills**  - prepare synthesis of compounds on micro and macro scale  - accurately assort correct techniques and chemical equipment for synthesis;  - identify and assort purity of obtained compounds;  - analyse own work and draw conclusions using personal experimental results;  - keep rules of safety in laboratory. | | | |
| **Social competence**  - organise own work and exhibit responsibility for personal workstation;  - appreciate meaning clearness in laboratory work;  - understand necessity of work according to procedures;  - keep caution during contacts with chemical substances | | | |