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| 1. Course title: Organic Chemistry 2 laboratory | | | | | |
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| 2. Code: | | 3. Type (lecture, practice etc.): laboratory practice | | | |
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| 4. Contact hours: 4 hoursper week | | 5. Number of credits (ECTS): 5 | | | |
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| 6. Preliminary conditions (max. 3):  Organic Chemistry 1 lecture and laboratory absolved | | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | | |
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| 8. Limit for participants: 16 students in a group | | | | | |
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| 10. Responsible teacher (faculty, institute and department):  Dr. Cecília Sár PhD (Faculty of Medicine, Institute of Organic and Medicinal Chemistry) | | | | | |
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| 11. Teacher(s) and percentage: | | Dr. Tamás Kálai | | 100 % | |
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| 12. Language:English | | | | | |
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| 13. Course objectives and/or learning outcomes:  The objective of laboratory practise is to introduce students to the main organic chemical experimental. They examine the specific reactions and characteristics of functional groups. | | | | | |
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| 14. Course outline  week 1: General instructions for work in the laboratory, safety precautions; Purification of benzaldehyde, synthesis of benzoin and benzalaniline.  week 2: Synthesis of benzil; Characteristic tube reactions of oxo compounds.  week 3: Preparation of D-galactose-phenylhydrazone, benzilic acid, saccharose-octaacetate, benzyl-triphenyl-phosphonium chloride; Identification of 4th unknown compound.  week 4: Characteristic tube reactions of carbohydrates; Synthesis of stilbene, 2,3-diphenyl-quinoxaline, triphenyl-methanol.  week 5: 1st written test; Identification of 5th unknown compound; Characteristic tube reactions of carboxylic acids.  week 6: Synthesis of hippuric acid and oxalic acid, isolation of caffein.  week 7: Synthesis of pentyl-acetate;  week 8: Preparation of acetylsalicylic acid; Characteristic tube reactions of carboxylic acid derivatives.  week 9: Synthesis of 4-acetamido-toluene; Characteristic tube reactions of heterocycles.  week 10: Synthesis of benzimidazole, 4-amino-3-nitrotoluene; 2nd written test.  week 11: Preparation of 1-phenyl-3-methyl-5-pyrazolone and benzpinacol; Characteristic tube reactions of amino acids and peptides.  week 12: Synthesis of tetrahydrocarbazol; Isolation of rutin and myristic acid.  week 13: Evaluation. | | | | | |
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| 15. Mid-semester works  During the semester students have to accomplish the preparative works and two written tests. They have to document the experiments in their exercise book. | | | | | |
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| 16. Course requirements and grading  Grading is based on the results of written test and the yield and purity of compounds prepared. | | | | | |
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| 17. List of readings  Balázs Bognár, Tamás Kálai and Cecília Sár, Organic Chemistry Laboratory Guide for English speaking students majoring in chemistry, Department of Organic and Medicinal Chemistry, Medical Faculty, University of Pécs  2014 | | | | | |
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| 18. Recommended texts, further readings  Pavia, D.L.; Lampman, G.M.; Kriz, G.S.; Engel, R.G. Introduction to Organic Laboratory Techniques, a Microscale Approach, 4th ed, Thomson Brooks/Cole, Belmont, 2007.  Mayo, D. W.; Pike, R. M.; Trumper, P. K. Microscale Organic Laboratory, 3rd ed.,Wiley, New York, 1994.  Furniss, B. S.; Hannaford, A. J.; Smith, P. W. G.; Tatchell, A.R.L Textbook of Practical Organic Chemistry, 5th ed., Longman, Essex, 1989. | | | | | |
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| **Date** | 13 April, 2017 | **Prepared by** |  | | |
| Dr. Cecília Sár  responsible teacher | | |
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| **Endorsed by** | | |  | | |
| program supervisor | | |