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| 1. Course title: **General and Inoganic Chemistry II. laboratory** | | | | |
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| 2. Code: | | 3. Type (lecture, practice etc.): practice | | |
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| 4. Contact hours: 5 hoursper week | | 5. Number of credits (ECTS): 6 | | |
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| 6. Preliminary conditions (max. 3):  General and Inorganic Chemistry I.lecture, discussion and laboratory | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | |
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| 8. Limit for participants: 12 | | | | |
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| 10. Responsible teacher (faculty, institute and department):  György Petőcz PhD (Faculty of Science, Institute of Chemistry, Department of Inorganic Chemistry | | | | |
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| 11. Teacher(s) and percentage: | | Dr. György Petőcz | | 100% |
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| 12. Language:English | | | | |
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| 13. Course objectives and/or learning outcomes:  Objectives: Preparation of the elements and their compounds; examination of their physical and chemical properties.  Learning outcomes: Students will be able to carry out basic experiments alone and will have acquired wide-ranging knowledge in the field of inorganic chemistry by the end of the semester. | | | | |
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| 14. Course outline   1. Laboratory safety. The hydrogen. Qualitative analytical chemistry. 2. The alkali metals and the compounds of the 1st group elements. 5th analytical group of cation. 3. The alkaline earth metals and the compounds of the 2nd group elements. 4th analytical group of cation. 4. The boron group. 5. The carbon group and their simple molecular compounds. 6. The nitrogen group. Nitrogen, phosphorous and arsenic compounds. 7. The oxygen, ozone. Oxygen compounds. 8. The sulphur and its compounds. 1st, 2nd, 3rd analytical groups of cations. 9. The halogen compounds and their reactions with the 3rd analytical group of anions. 10. Vanadium and its compounds. Chromium and its compounds. Manganese. 2nd analytical group of anions. 11. Elements of iron group and their compounds. 4st analytical group of anions. 12. Elements and compounds of copper group and zinc group. 1st analytical group of anions. 13. Report | | | | |
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| 15. Mid-semester works  At the beginning of the laboratory practices students must write a minitest related to the current laboratory work and procedures and must attain at least 50 % of the points.  Students must write laboratory reports about their own work and must hand it in after the current lab practice in 24 hours.  Failed lab reports have to be corrected and handed in the next week together with the current lab report. All the lab practices must be accomplished and students must attain minimum grade acceptable.  During the semester students must write two overall tests and the average of the grades must be at least 50 %.  At the fourth week lab practice students write a test related to the trivial name of compounds and must attain at least 90 % of the points. Amendment is possible only once during the next lab practice.  Repetition and amendment can be carried out at the last lab practice. | | | | |
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| 16. Course requirements and grading  During the semester all the work activity (lab practices and tests) will be graded as follows:   * minitests at the beginning of the lab practices: 30%, * overall tests: 30% * lab reports + results of the qualitative analysis of ions: 30%, * work activity at the lab practices: 10%   Grades:  0–50% failed  51–65% acceptable  66–75% average  76–90% good  91–100% excellent | | | | |
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| 17. List of readings | | | | |
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| 18. Recommended texts, further readings | | | | |
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| **Date** | 27. April, 2017 | **Prepared by** |  | |
| Dr. György Petőcz  responsible teacher | |
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| **Endorsed by** | | |  | |
| Dr. László Kollár program supervisor | |